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THE NON-AUSTRONESIAN LANGUAGES CENTERING IN NEW GUINEA ARE LISTED AND DESCRIBED IN THIS REPORT. IN ADDITION, SENTENCE SAMPLERS OF THE USARUFA AND WANTOAT LANGUAGES ARE PROVIDED. (THE REPORT IS PART OF A SERIES, ED 010 350 TO ED 010 367.) (JK)

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Title

LANGUAGES OF THE WORLD:
INDO-PACIFIC FASCICLE FIVE

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LANGUAGES OF THE WORLD:
INDO-PACIFIC FASCICLE FIVE

C. F. and F. M. Voegelin

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5.1. List of non-Austronesian languages centering in New Guinea

5.2. Usarufa

5.3. Wantoat

For authorship and sponsorship, see Languages of the World: Sino-Tibetan Fascicle One (0.1). The research reported herein was performed pursuant to a contract with the United States Office of Education, Department of Health, Education, and Welfare.

5.1 The non-Austronesian languages centering in New Guinea are partially flanked by aboriginal languages of Australia, which lies to the south of New Guinea, and otherwise flanked by languages which belong to the Austronesian (Malayo-Polynesian) family. The numerous Austronesian languages are scattered to the southeast (New Zealand), east, and northeast of New Guinea, in the watery expanse of Polynesia; the languages spoken to the north of New Guinea in the Carolines and other islands of Micronesia also belong to the Austronesian family, as do those spoken in the Philippines to the northwest, and in Indonesia to the west and southwest of New Guinea. In short, the non-Austronesian languages centering in New Guinea are flanked by Austronesian languages on all sides except the off-shore south. But on the south coast of New Guinea itself, there are some interspersed Austronesian languages. The languages so surrounded might be called non-Austronesian non-Australian languages, or for short, non-Austronesian languages, since they bear no traces of genetic relationship with Austronesian languages and, only very possibly, traces of the most remote relationship with languages in Australia.

These non-Austronesian languages extend from the Santa Cruz Islands in the east, across all of New Guinea, as far as the islands of Halmahera and Timor in the west. These languages are frequently known as 'Papuan' languages, but many linguists now replace the term 'Papuan' by 'non-Austronesian' on the grounds (a) that the languages in question do not form a genetic group, (b) that 'Papuan' is not satisfactory even as a geographic designation, since these languages also appear outside of New Guinea (see Arthur Capell, Oceanic Linguistics Today, and comments thereon, CA 3.371-428, 1962). However, Greenberg is cited by Murdock (Ethnology 2.123, 1964) as having postulated a phylum including the languages of the Papuans of New Guinea and the non-Austronesian-speaking peoples in the Solomon Islands and in Halmahera and Timor in the Moluccas, as well as the Australians, Tasmanians and Andamanese. And Davenport says of the non-Austronesian Santa Cruz Island languages that 'correspondences with a number of items on Greenberg's unpublished list of "Indo-Pacific Etymologies" do seem encouraging'. (CA 3.402, 1962).

Until the end of the 1950's all discussions of the languages of New Guinea which treated more than small closely related groups of languages stressed the fact that the hundreds of languages spoken in a comparatively small area seemed to be completely unrelated to each other except for a few very small groups of immediate neighbors. Until this time little was actually known about more than a few of the languages of New Guinea. Limited survey and descriptive work had been published (then and since) on some of the languages of West New Guinea by such Dutch scholars as Anceaux, Boelaars and Cowan, and on the languages of Australian New Guinea by Ray (especially for Papua), Capell (especially for the Highlands and the Bogia district), and by a number of German and English missionaries. But for the vast majority of the languages, no linguistic data were available at all.

The situation in New Guinea linguistics was changed in the 1960's by publication of the results of Wurm's survey work — largely lexicostatistical — in the Highlands Districts stating explicitly relationships among a fairly large group of languages. Depth in analysis is promised by intensive work on a number of languages in Australian New Guinea by members of the Summer Institute of Linguistics, and by other scholars, especially from New Zealand.

Our list of non-Austronesian language groups below — in part genetic, in part geographic — begins with the largest group of related languages, the Central New Guinea Macro-phylum. It then lists other New Guinea languages starting from the northwestern tip of the island and proceeding in a generally counter-clockwise circle around the island. It concludes with the languages of Santa Cruz, the Solomons and Timor and Alor. We do not attempt to include all of the names listed in the older literature on New Guinea languages; we have omitted those found in earlier sources, as Ray, and those found in Wurm's earlier work, which are not identifiable in terms of more recent, more comprehensive surveys of the same areas.

CENTRAL NEW GUINEA MACRO-PHYLUM

On the basis of lexicostatistics, Wurm (Grouping of Languages in the Highlands Districts of Papua-New Guinea, 1959) set up an 'East New

Guinea Highlands Micro-phylum' consisting of a 'stock' composed of four families and one language isolate, and — more distantly related — another family and two additional language isolates. This micro-phylum includes most of the languages of the three Highlands Districts of Australian New Guinea and Papua. Since the recognition of this micro-phylum, a number of languages outside the Highlands Districts — in the Sepik, Morobe, Northern and Western Districts of Australian New Guinea and in the central highlands and southeast of West New Guinea — have — on the basis of lexical and/or typological similarities — been said to be distantly related to the East New Guinea Highlands Micro-Phylum (cp. Current Anthropology 3.371-428, 1962). Assuming that these relationships can be demonstrated — to the extent that phylum relationships are demonstrable — the 'changing linguistic picture of New Guinea' is changed even further by the idea that languages which are related, however remotely, extend not just over the Highlands, but over an area three times as great across the center of New Guinea, and are spoken by a little over half of the estimated 2,180,500 speakers of non-Austronesian languages in New Guinea.

Our list below maximizes the membership of this macro-phylum beyond that stated by any one specialist in the area. It is maximized by the inclusion of all groups said to be related to any group within the macro-phylum, on the theory that if A is related to B, and B is related to C, then A is related to C, whether or not the relationship has been demonstrated or even asserted. (As noted below, many of the relationships within the macro-phylum are merely asserted; the composition of such a macro-phylum is far from demonstrated.) The chains of relationship by which the members of the macro-phylum are linked may be traced through the comments given under various language groups below which state that a given group is said by scholar X to be related to another group; under the second group will be found the information that the second group is said to be related to a third group, and so on.

The major subdivisions of the Central New Guinea Macro-phylum are discussed below in the following order, starting with the largest member, both in terms of numbers of languages and, overwhelmingly, in terms of numbers of speakers.

(a) the East New Guinea Highlands Micro-phylum (5 families and 7 language isolates), and counterclockwise around the island from the westernmost languages of the macro-phylum;

(b) the Southeastern West New Guinea Phylum (1 family and a group of languages of uncertain degree of relationship);

(c) the Ok-Oksapmin Phylum (2 families and 2 language isolates);

(d) the Binandere Phylum (1 family plus languages of uncertain degree of relationship);

(e) the Kâte Phylum (1 family plus languages of uncertain degree of relationship);

(f) the Ndu Family;

(g) the Ndani Family.

East New Guinea Highlands Micro-Phylum

Languages of the East New Guinea Highlands Micro-phylum are spoken by some 748,000 people in the three Highlands districts of Australian New Guinea. The Micro-phylum was established, and subdivided, by Wurm on the basis of percentages of shared apparent cognates in a modified version of the Swadesh list. The Micro-phylum as described by Wurm is composed of a 'stock', consisting of four families and one language isolate, and one family and three language isolates which are more remotely related to the languages of the 'stock'. Languages are said to belong to the same family if they share 40% of the vocabulary on the test list; languages belonging to the same branch ('sub-family') share more than 60%. Languages of different families within the 'stock' share between 15 and 25% of the test list, and languages more remotely related to the 'stock' (but still in the Micro-phylum) share, on an average, between 4 and 12% of the test list with languages of the 'stock'. The high percentages of shared items between languages of different 'families' within the 'stock' may indicate that the 'stock', or possibly even the whole 'micro-phylum', will turn out to be reconstructible as a single language family.

Wurm's earlier presentation of the composition of the micro-phylum used a minimum of 81% of shared vocabulary on the test list as the criterion for dialects of the same language, but his more recent papers (e.g., 1964) introduce the criterion of mutual intelligibility, which reduces the number of separate languages in the 'stock' from fifty to twenty-nine. Languages are listed below in terms of this reduction by mutual intelligibility.

The four families (and the language isolate) of the 'stock' are given geographical designations in Wurm's later descriptions, which we follow. Wurm's Preliminary Report on the Languages of the Eastern, Western, and Southern Highlands of Papua-New Guinea (1957) includes a number of dialect or language names not identifiable with those of his later works. These are omitted here since most are names of locations which have presumeably since been recognized to fall within the areas of dialects or languages included in later lists. Numbers of speakers are based largely on the 1959-60 census, after Wurm, 1964.

EAST NEW GUINEA HIGHLANDS 'STOCK'

Eastern Family

Languages of the Eastern (Gadsup-Auyana-Awa-Tairora, Kainantu) family are spoken in the northeastern corner of the Eastern Highlands District by over 30,000 people. Each of the first three languages listed below constitutes a separate branch in Wurm's classification, but these three are more closely related to each other, constituting a Gauwa branch, than to the Tairora branch (Howard McKaughan, A Study of Divergence in Four New Guinea Languages, AA 66, No. 4, Part II, pp.98-120).

(1) Gadsup — A garabe-Oyana, 15,227 speakers

(2) Auyana — Usurufa (Uturupa), including the Kosena subdialect of

Auyana, 5,263 speakers

(3) Awa, 1,185 speakers

Tairora Branch:

(4) Tairora, possibly including Suwaira, as well as (5) and (6), below, 8,181 speakers

(5) Kambaira, 135 speakers

(6) Binumarien, 123 speakers

East-Central Family

Languages of the East-Central (Gende-Siane-Gahuku-Kamano-Fore) family are spoken in the central half of the Eastern Highlands district and in a small adjacent area of the Madang District by some 152,000 people.

Gende Branch:

(1) Gende (Iwam), 8,000 speakers

(2) Biyom, 400 speakers, in the Madang District

Siane Branch:

(3) Siane, with 15,336 speakers, is spoken in several dialects, including Komunku (Komonggu), spoken by the Ɇmenyo tribe among others, Ramfau (Lambau), Ono-Ketu, and Koreipa (Korefa) (Salisbury, AL 4:7.1-13).

(4) Yabiyufa (Yaviyufa, Jafijufa), 4,464 speakers

Gahuku Branch:

(5) Gahuku (Gafuku)-Asaro, including Gama, 22,987 speakers

(6) Benabena, 11,765 speakers

Kamano Branch:

(7) Kamano-Kanite (Kemiju Jate)-Keigana (Keijagana Jate)-Yate (Jate)-

Yagaria, 60,651 speakers

Fore Branch:

(8) Fore, 12,021 speakers

(9) Gimi, 16,735 speakers.

Central Family

Languages of the Central (Hagen-Wahgi-Jimi-Chimbu) family are spoken by some 286, 000 people in the eastern half of the Western Highlands District, with a small overlap into the Southern Highlands, and in the western quarter of the Eastern Highlands. More detailed locations for some of the languages of the family and information on the language situation in part of the Western Highlands are given in Gordon Bunn and Graham Scott, Languages of the Mount Hagen Sub-district (Port Moresby, 1962).

Each of the first two languages listed below constitutes a separate branch of the family.

(1) Medlpa (Moglei, Hagen)-Aua-Gawigl, including other dialects as Tembagla, 90,777 speakers

(2) Wahgi (Middle Wahgi), with dialects listed as: Gimi (by S.I.L. workers, a different Gimi than that in the East Central family), Nangamp (village)-Banz-Nondugl, Kuno, Kup-Minj, Pukamigl-Andegabu, Kunjip, and Kambia; people south of the Wahgi River are collectively called Kuma, those north of the river Ndanga, and both together Nangamp.

Jimi Branch:

(3) Maring (Yoadabe-Watoare, Karamba-Kambegl), 4,241 speakers

(4) Narak-Kandawo (Gandja), 12,900 speakers

Chimbu Branch:

(5) Chimbu (Kuman)-Nagane-Sinasina (Sinesine), including Tabare-Dom (Dom-Marigl-Gumine-Golin-Nondiri-Salt (Iui)), 119,257 speakers

(6) Chuave (Tjuave)-Elimbari, including Sua, 20,967 speakers

(7) Nomane, 3,681 speakers.

Chuave and Nomane, (6) and (7) above, are called one language, Dene, with three dialects, Mami-Duma, Gai, and Siati, named 'to accord with native usage rather than with the names of Government Rest House sites' by Salisbury in reporting fieldwork in the area (AL 4:7.1-13).

West-Central Family

Languages of the West-Central (Enga-Huli-Pole-Wiru) family are spoken by about 253,000 people living in the western half of the Western Highlands and all across the Southern Highlands District.

Each of the first four languages listed below constitutes a separate branch of the family.

(1) Lemben, 600 to 700 speakers

(2) Huli-Huliduna, 54,000 speakers

(3) Mendi-Kewapi (Kewa)-Pole-Augu-Sau, 63,750 speakers

(4) Wiru, 11,541 speakers

Enga Branch:

(5) Enga (Caga, Tsaga, Tchaga)-Kyaka (Baiyer Enga), 119,000 speakers; lists of Enga subdialects include: Wape, Sau, Syaka (Tchak), Laiap, Mae (Wabag),

Maramuni, Wale-Tarua, Wapi, Paloko, Yandapu (Jandapu)-Taro-Muritaka, Sirunki, Waka, and Kandep-Aruni-Karintsu.

(6) Ipili-Paiela, 4,500 speakers.

Duna Language Isolate

Duna is spoken by 14,000 people in the western end of both the Western and the Southern Highlands Districts.

Kobon-Karam-Gants Family

The languages of the Kobon-Karam-Gants family are spoken by 10,000 people in the westernmost part of the central Madang District and a small adjacent area in the Western Highlands District. This family is more remotely related to the four families and one language isolate above than they are to each other, sharing on the average only 12% of the vocabulary on the test list with those above.

(1) Kobon

(2) Karam

(3) Gants.

Language Isolates

Wurm lists three language isolates as members of the East New Guinea Micro-phylum outside of — i.e. more remotely related to — the members of the East New Guinea Highlands 'Stock'. One of these language isolates — Kutubu — is placed by Loukotka (CA 3.415), on the basis of further lexicostatistics, in a group including perhaps three other languages not mentioned by Wurm. Loukotka gives no information on degrees of relationship between the languages of this group — the 'Sesa Group'; further work may show that the languages of the group are members of a family, rather than language isolates.

Mikaru is spoken by about 4,000 people in the eastern tip of the Southern Highlands District and adjacent Eastern Highlands and Gulf Districts. Mikaru shared 8% of the test list vocabulary, on an average, with languages of the East New Guinea Highlands 'stock'.

Pawaia (Pavaia) is reported by Wurm to be spoken by less than 2,000 people in the northern part of the Gulf District and adjacent Eastern Highlands. Capell (1962, p.139) reports Pawaia to be spoken by 'the peoples of Namaina, Keka, Taraha, Sira and Sesa, and understood by those of Yo, to the east', and 'the Sira number probably some 2,000'. Wurm regards Pawaia as only dubiously belonging to the East New Guinea Highlands Micro-phylum. Pawaia shared an average of 4% of the items on the test list with the languages of the 'stock'.

Sesa Group:

Kutubu (Foi), spoken by 2,584 people in the south-central part of the Southern Highlands District, shared an average of 12% of the items on the test list with the languages of the East New Guinea Highlands 'Stock'. Beside Kutubu and Foi, dialects listed include: Mubi, Fimaga, Ifigi and Kafa.

Sesa-Ibukaira may be a dialect of Pawaia rather than a separate language;

see Pawaia, above.

Ro-Keai-Bara

Foraba.

Ekagi-Wodani-Moni Family

The westernmost extension of the Central New Guinea Macro-Phylum is the Ekagi-Wodani-Moni Family, consisting of at least three languages spoken by 50,000 people in the Wissel Lakes (Lake Paniai) area of the highlands of West New Guinea. Capell (1962) compares the person marking systems and other morphological features of languages in this family and languages of the Dem-Ndani-Uhunduni Family and concludes that both families are related to languages of the Central Highlands (the East New Guinea Micro-Phylum) on a phylum level. Wurm (The Changing Linguistic Picture of New Guinea, Oceania 31.121-36, 1960) regards the relationship of the Ekagi-Wodani-Moni Family to the Kamoro-Sempan-Asmat Family, below, and 'perhaps also to a few other, numerically insignificant, languages in south-western Netherlands New Guinea', as appearing probable from J. H. M. C. Boelaars, The Linguistic Position of South-Western New Guinea (Leiden, 1950).

The languages of the Ekagi-Wodani-Moni Family are:

(1) Ekagi (Kapauku), spoken by 10,000 people. Simori and Yabi (Jabi) are dialects of Ekagi.

(2) Wodani (Wolani, Woda), spoken about seventy-five miles northeast of Lake Paniai

(3) Moni (Migani), including the dialect Awembak (Awembiak), spoken over an area from ten to seventy miles northeast of Lake Paniai by between fifteen and twenty thousand people.

Southeastern West New Guinea Phylum

South and east of the languages of the Ekagi-Wodani-Moni family — along and inland from the central south coast of West New Guinea — are spoken a group of languages which Capell and Wurm, after Boelaars, consider — largely on the basis of typological similarities in morphology -- to be related to each other in varying degrees. At least three of these languages clearly constitute a family. The estimate of 39,000 speakers for the languages in this Kamoro-Sempan-Asmat family may apply rather to the number of speakers of all the languages of the phylum.

Kamoro-Sempan-Asmat Family

The languages of the Kamoro-Sempan-Asmat family are spoken in the coastal and hinterland area between Lakahia Bay in the west and the mouth of the Eilanden River in the east; they are:

(1) Kamoro, estimated to have between 7,000 and 8,000 speakers

(2) Sempan

(3) Asmat.

Southern West New Guinea Group

In the southern extension of West New Guinea — south and east of the languages of the Kamoro-Sempan-Asmat family — are spoken a group of languages considered (on the basis of typological similarities in morphology shown by Boelaars, 1950) to be related to each other. These languages are:

(1) Yaqai (Jaqai, Mapi)

(2) Marind (Marind-Anim), the number of speakers of which is said to have greatly decreased from a high of 8,000

(3) Boazi (Boadji, Bwadji)

(4) Awyu (Awju, Mandobo), including Pisa and Sjiagha

(5) Yei (Jei), with 1,000 speakers

(6) Kanum, 300 speakers

(7) Moraori (Moraeri, Morari), 50 speakers

(8) Makleu (Maklew), 120 speakers

(9) Yelmek, 350 speakers

(10) Mombum, 250 speakers.

These are presumably Wurm's 'few other, numerically insignificant, languages' to which the languages of the Kamaro-Sempan-Asmat family may be related. The relationship of the languages of this group to the Kamoro-Sempan-Asmat family is denied by Capell (1962, p.8), on the basis of the same work of Boelaars' which leads Wurm to postulate a possible relationship, "As Kamoro departs so widely in its structure from the other languages it is here treated as representative of a different group and so classed with those to the east of the Eilanden River."

Boelaars' comparisons of the languages in this group included Kati, which is here assigned to the Ok (Telefomin) family. Capell (CA 3.373,

1962) suggests that Boadji ((3), above) may also be related to the Ok family. Similarities between Kati and the languages of this group, or between Boadji and the members of the Ok family, as well as between Boadji and the other languages of this Southern West New Guinea group, may provide further evidence that these West New Guinea languages belong to the Central New Guinea Macro-phylum.

OK-OKSAPMIN PHYLUM

The languages of this phylum are spoken on the upper reaches of the Sepik, Fly and Digoel Rivers, centering in the area of central New Guinea where the border between the Sepik District and Papua's Western District meets the West New Guinea border. As identified by Alan Healey, this phylum is composed of two families and one or more language isolates.

The languages of this phylum are said by Wurm (AA 66, No. 4, Part 2, p.80) to 'show connection with languages of the East New Guinea Highlands Stock . . . largely similarities and agreements on the typological level, some of them substantial, but with very little [though apparently some] lexical agreement'.

Ok Family

On the basis of lexicostatistics, Healey has divided the Ok (Telefolmin) family into the following branches and languages, as reported by Wurm, Recent Comparative and Typological Studies in Papuan Languages in Australian New Guinea (1964). The population estimates given below are also from Healey, who gives 51,000 as the total number of speakers of Ok languages.

Min Branch:

(1) Teleefool (Telefool, Telefomin), 4,100 speakers including the Falamiin

(2) Tifal, 3,000 speakers

(3) Faiwolmin (Faiwol), 3,000 speakers

(4) Bimin, 1,000 speakers

(5) Kawol, 400 speakers

(6) Iwoer, 1,500 speakers

(7) Ngalum, 15,000 speakers

(8) Mianmin, 1,500 speakers

(9) a language not yet named, 500 speakers

Ninggrum Branch:

(10) Ninggrum, 3,500 speakers, possibly including the number of speakers of Kativa

(11) Kativa

Kati (Kaeti, Muyu) Branch:

(12) Niinati (Northern) Kati, 8,000 speakers

(13) Metomka Kati, 4,000 speakers

(14) Yonggom, 2,000 speakers

(15) Digoeleesch

Sibil Branch:

(16) Sibil, 3,000 speakers

Elsewhere, Wurm lists from Healey another name among the lowland group of Ok languages — Kowan, with 500 speakers — but this list does not include Digoeleesch, so Kowan may represent an alternate name for Digoeleesch rather than another Ok language. Capell's earlier list of the related languages in this area, which has since been surveyed by Healey, includes four names which presumeably do not represent additional languages, but, rather, alternate names for or dialects of some of those listed above: Aran, Awin, Aekyom and Bolivip.

Oksapmin Family

Languages of the Oksapmin family are spoken by some 4,000 people in a relatively small area of the southern Sepik District with some overlap into the Western Highlands District.

(1) Tarangap

(2) Gaugutianap

(3) Tekin

(4) Wengbit

(5) Eriku (Eribu).

Wurm reports that the language isolate, Dumut, also probably belongs to this phylum as does 'the language of the Goliath pygmies, further west in Indonesian New Guinea', presumeably Tapiro.

Binandere Phylum

The relationship between the languages of the Binandere phylum and those of the East New Guinea Highlands Micro-phylum is variously described: 'at least a stock relationship [is] more than likely' (Capell, CA 3.375), 'work which I did demonstrated . . . some kind of a lexical — and structural — relationship existed' (Wurm, CA 3.422), and "These connections are largely similarities and agreements on the typological level, some of them substantial, but with very little lexical agreement" (Wurm, AA 66, No. 4, Pt. II, p.80).

Both Capell and Wurm speak of a Binandere family, with perhaps 25,000 speakers along the coast of and inland in the Northern District for which Wurm (1960) suggests Orokaiva (Orokaiwa) or Binandere-Tsia as possible alternate names. Neither Capell nor Wurm lists the membership of the family in any detail, though Wurm (1960) reports that the family consists of perhaps five languages. Loukotka (CA 3.415) lists six subgroups in his Binandere 'group', but since the members of one of these are described by Capell (1962, pp.148-9) as showing 'no obvious relationship' to the 'Binandere languages', Loukotka's 'group' is here labelled a 'phylum' (see further comment under the Mailu phylum).

Nearly all of the language names mentioned or mapped by Capell in the Northern District of Papua are included in Loukotka's list of the Binandere group, except for the languages of the Mailu phylum in the extreme southeastern interior of the district and Ubir, an Austronesian language on Collingwood Bay. Listed by Loukotka were:

(1) Tsia-Yema-Mawai, of which at least Tsia is spoken in the Morobe

District

(2) Giumu-Aru-Davera-Tahari

(3) Binandere (Binandele)-Berepo (Berebo)-Aiga-Amara

(4) Waseda-Yoda

(5) Totora (Totore)-Baruga-Adaua-Musa-Gewaduru

(6) Maisin, spoken in the northern end of the Milne Bay District.

Interspersed among these on Capell's map of the Northern District (1962) are the following names, some of which may be synonymous with names listed by Loukotka which do not appear on the map, some of which may represent additional languages in the family or phylum:

Yarani shown as surrounded by the three dialects of language (1), above, may well be another dialect of it.

The following four and Baruga, (5) above, are said to be related to a degree 'much the same as that between the Romance languages':

(7) Ewage (Ewa Ge, Notu)

(8) Orovaika (Orowaika), mapped south of the Binandere

(9) Kwarafe

(10) Aeka, perhaps synonymous with Aiga, (3) above, since one appears on the map and the other in the text.

Interspersed with the names of the coastal languages of the family or phylum are:

(11) Yega

(12) Dirou

(13) Manugulasi (Managalasi), spoken by 3,000 people south of Popendetta, is reported by S. I. L. workers to be a different language than Upper Manugulasi, and both are reported to be 'possibly separate from the other languages of the Binandere 'group'.

(14) Upper Manugulasi, spoken around Popendetta

(15) Onjob, further south on the coast than the other four, is more probably not related; Capell implies its non-relationship in speaking of it among the languages 'south of the Binandere family' (CA 3.375).

Kâte Phylum

The Kâte (Huon Peninsula) phylum is described by Wurm as being distantly related to the East New Guinea Highlands micro-phylum on the same basis as the Binandere phylum, above.

Wurm (1960, p.130) describes the Kâte phylum itself — i.e., the languages of the Huon Peninsula in the Morobe District — as 'apparently constituting a family or perhaps a stock consisting of about a dozen languages'. Capell (CA 3.373) says the languages of the Huon Peninsula have 'much structural resemblance among them', but also says (1962, p.79), "It is true that practically all the known languages of the district are similar in construction to Kâte, but they are often completely different in vocabulary." Capell's statement about the vocabulary differences, as well as the fact that for some of the languages 'little information is available, and in others none at all', leads us to label the group as a phylum rather than a family.

Capell's (1962) map of the Morobe District shows the following non-Austronesian names on the Huon Peninsula (except Kâte, itself, not shown on the map); Wurm gives 'over 40,000' as the total number of speakers:

(1) Kâte (Wemo), about 1,200 speakers on the coast near Finchhaffen, but Kâte is spoken as a lingua franca over a much wider area, extending into the Central Highlands districts

(2) Hube, about 6,000 speakers

(3) Ono, with a population of 3,000

(4) Selepet, 6,000

(5) Komba (Kamba), 8,000

(6) Timbe, 9,000

(7) Uruwa, 3,000

(8) Yupna, 5,000

(9) Boana

(10) Migaba'

(11) Deduae

(12) Momale

(13) Bulum

(14) Wamola

(15) Mape.

In addition to those in the Morobe District, apparently at least one language of the southeastern end of the Madang District may also belong to the Kâte phylum:

(16) Erawa, 'an inland language, spoken by some thousands of people'.

Ndu Family

The Ndu (Maprik, Middle Sepik) family is said by Wurm (AA 66, No. 4, Pt. II, p.80) to also 'show connection' with the East New Guinea Highlands micro-phylum based 'largely [on] similarities and agreements on the typological level, some of them substantial, but with very little lexical agreement'.

Languages of the Ndu family are spoken in the area along the Middle Sepik River, and between it and the coast, in the Sepik District by less than 60,000 people. After survey field work in the area, Donald Laycock established the membership of the Ndu family as follows.

(1) Abelam (Maprik), spoken in two dialects by 29,188 people

(2) Boiken, also with two dialects, spoken by 17,332 people from the Tarawai Islands through a wider area from the coast well into the interior

(3) Iatmul, spoken by 7,887 people along both sides of the river, including the Brugnowi, whose up-river dialect is called Nayura

(4) Sawos, spoken by 1,804 people between the Boiken and the Iatmul

(5) Manambu, spoken by 1,448 people, including the Buimanambu, along the Sepik River immediately west of the Iatmul

(6) Yelogu, with 63 speakers northwest of the Manambu

(7) Ngala (Swagup), with 134 speakers on the Sepik River, west of the Manambu.

Ndani Family

The languages of the Ndani (Dem-Ndani-Uhunduni) family are spoken in the highlands of West New Guinea from east of the Carstensz Toppen and the Doorman Top across the Baliem Valley. The total number of speakers of the languages of this family is variously estimated at between 110,000 and 200,000. The family consists of at least three languages, but the 'dialects' of some of these — especially of Ndani, (1) below — may actually represent separate languages.

The place of the Ndani family in the Central New Guinea Macro-phylum is stated by Wurm (1960, p.131): "It seems that this family is related to the East New Guinea Highlands (Micro) Phylum."

Listed as the languages of the family are:

(1) Ndani (Dani, Morip, Oeringoep), of which Capell lists as dialects: Bokondini, Doda, Pesechem (Pesegem), Ibele and Timorini. Bromley's survey of Dani dialects included the following: Wodo Valley, Lower Kiben, Lower Bele, Lower Aikhe, Lower Grand Valley, Gorge Ndani, and Western Ndani.

(2) Dem, including Dauwa

(3) Uhunduni, including Enggipulu.

OTHER LANGUAGES IN NEW GUINEA

The non-Austronesian languages of New Guinea outside the Central New Guinea Macro-Phylum are discussed below in a general counter-clockwise order around the island, starting with the northwestern tip of

West New Guinea (Irian Barat). Our grouping of languages below is in part genetic — as indicated by the labels 'family' and 'phylum' — and in part geographic.

For most of the languages of New Guinea, even tentative or 'by inspection' assignment to genetic groups is not possible, not because these languages are necessarily so diversified that relationships are impossible to discover, but because these languages are simply unknown linguistically. Even those languages which are assigned to 'genetic' groups may sometimes be so assigned on the basis of geographic rather than linguistic criteria.

WEST PAPUAN PHYLUM

Partly on the basis of lexicostatistic comparisons of brief vocabularies and partly on the basis of typological similarities in morphology, H. K. J. Cowan (Oceania 28.159-66, 1957) postulates a relationship on the phylum level between the languages spoken in the northern part of the Indonesian island of Halmahera (northwest of New Guinea) and most of the languages of the Vogelkop Peninsula of West New Guinea. Comparisons of these languages made thus far, however, are of such a limited nature that the relationships of languages within the phylum can only be stated in terms of groups of languages more closely related to each other than to languages in other groups. No reconstructions have been attempted, so relationships cannot be stated in terms of families and branches, but the relationships between members of each of the groups below appear to be no less close than between members of language families (perhaps some pairs of names within the same group may even represent dialects of the same language), and some of the groups may be related as branches of the same family.

Cowan groups the languages of the West Papuan phylum as follows.

North Halmahera Group (subgrouped after Salzner (1960); the only languages listed which were not included in Cowan's sample were Ka'u, Madole and the dying Ibu):

Northwest:

(1) Loda

(2) Tobelo, with three dialects:

- a. Tobelo-Gamsungi:
    - i. Gorua
    - ii. Kokarlamo
    - iii. Wohia
    - iv. Kupa-Kupa
    - v. Gamsungi
- b. Tobelo-Boëng:
    - i. Mawea
    - ii. Pediwang
    - iii. Bőbale
    - iv. Lollobatta
    - v. Buli
    - vi. Morotái, including Tugutil
- c. Dodinga

(3) Tabaru

Central:

(4) Ka'u

(5) Pagu (Isam), including Tóloliku

West:

(6) Wáioli, with two dialects:

a. Sahu'u

b. Wáioli

(7) Madole (Modole)

(8) Galela

(9) Ibu

South:

(10) Ternate

(11) Tidore

Western Vogelkop Group:

(12) Moi, spoken on Salawati Island off the western tip of Vogelkop

(13) Mosana, also on Salawati Island

(14) Kalabra

(15) Moraid

(16) Madîk

(17) Karôn

Central Vogelkop Group:

(18) Ayamaru (Ajamaru)

Northern Vogelkop Group:

(19) Amberbaken

Southern Vogelkop Group:

Subgroup A:

(20) Konda

(21) Yahadian (Jahadian), including Nerigo

Subgroup B:

(22) Kampong Baru

(23) Puragi

Probable additional Vogelkop group:

(24) Arfak

(25) Hattam.

Since the Vogelkop languages included in the phylum extend all around the peninsula, except for its eastern end, Cowan feels that other (uncompared) 'Papuan' languages in the area may also belong to the West Papuan phylum. Such other possible members would include the following additional languages mentioned in Capell (1962):

(26) Mansim

(27) Meyach

(28) Maibrat

(29) Kaibus

(30) Mogao

(31) Samalek.

EASTERN VOGELKOP PHYLUM

Excluded from the West Papuan Phylum, with the note that they may not be excluded 'once for all' are two languages of the eastern end of the Vogelkop, assumed by Cowan to be related to each other on a phylum level:

(1) Mantion-Manikion

(2) Mansibabêr.

BOMBERAI PENINSULA

On typological grounds, Cowan excludes the Papuan languages of the Bomberai Peninsula from possible membership in the West New Guinea Phylum.

J. C. Anceaux (Languages of the Bomberai Peninsula, Nieuw-Guinea Studiën 2.109-21) considers these languages to be possibly related not only to each other but also to languages in the Vogelkop — "If the relationship of these Papuan languages can be proved, it would be certain that they would be related to the languages of the Vogelkop, for Barau is clearly related to Arandai on the opposite side of the MacCluer Gulf." Arandai, a dialect of Yaban, however, is outside (southeast of) the area of Cowan's West New Guinea Phylum and hence might prove to be an extension of the Bomberai Peninsula languages into the Vogelkop, rather than a Vogelkop (West New Guinea Phylum) language with relationship to languages of the Bomberai Peninsula.

Though unable to relate all the Bomberai languages to each other, Anceaux is able to identify some of them as being closely related to each other in four groups:

I:

(1) Yaban, spoken on the southeast coast of the Vogelkop, including the dialects Arandai and Weriagar

(2) Barau, with 150 speakers.

II:

(1) Iha (Kapaur), with 5,500 speakers

(2) Baham, with 450 speakers

(3) Karas, with 170 speakers.

III:

(1) Asienara (Asianara), with 700 speakers

(2) Iria (Kamrau), with 850 speakers.

IV:

(1) Mairasi (Kaniran), with 1,000 speakers

(2) Etna Bay.

Other probably 'Papuan' languages, for which no interrelationships have been demonstrated, which are mapped or listed by Capell (1962) on the Bomberai Peninsula, are:

Tanamerah, with 400 speakers — not the same language as the Tanamerah which is a dialect of Sentani, below

Modan

Kaitero

Patimuni

Faur

Faranyao.

NORTH PAPUAN PHYLUM

H. K. J. Cowan proposes a North Papuan Phylum to include the languages spoken on the Upper Tor River (in the area east of and inland from Sarmi on the northeastern coast of West New Guinea) and those spoken on the Tami River (in the area east of and inland from Hollandia). Cowan assumes that the unknown intervening languages may also belong to this phylum.

The Tami group of this phylum includes:

(1) Sko-Sangke (1,550 speakers in the Hollandia area of West New Guinea)-Vanimo-Wutong (less than 2,500 speakers in the Vanimo area of the Sepik District of Australian New Guinea)

(2) Arso (600 speakers)

(3) Awye (Awje)-Nyao (Njao)-Tabu (400 speakers), extending into Australian New Guinea

(4) Wembi (Yeti) (350 speakers)

(5) Skofro (50 speakers)

(6) Ampas

(7) Waris (the combined number of speakers of Waris and Ampas is estimated to be 2,000)

(8) Molof (400 speakers)

(9) Wina

(10) Dera

(11) Kaimerop

(12) Wagarindem.

One additional language is listed for northeastern West New Guinea on which not enough information has been obtained to classify it, but it may also belong to this group:

(14) Djanggu.

Language names given by Capell for the Upper Tor River area include:

(15) Kwerba

(16) Berrik

(17) Saberi

(18) Dabe

(19) Bonerif

(20) Ittik

(21) Mander

(22) Foja.

SENTANI-DEMTA-NIMBORAN PHYLUM

Between the Upper Tor and the Tami halves of the North Papuan Phylum, in the area from the east end of Lake Sentani to the coast, there are two languages related to each other on a phylum level, according to Cowan:

(1) Sentani, spoken in three dialects: Sentani proper, Nafri, and Tanamerah

(Tana Merah) by an estimated 6,000 people

(2) Demta.

West and south of Sentani and Demta there is a group of languages that are closely related to each other either as members of a language family, or possibly, as dialects of a single language, Nimboran. These Nimboran languages are reported by J. C. Anceaux (The Nimboran Language) to be related — less closely than to each other — to Sentani and Demta and to Uria, a language spoken immediately southwest of Nimboran.

(3) Nimboran

(4) Kamtuk

(5) Kwansu (Kuangsu, Kwangsu)-Bonggrang

(6) Gresi

(7) Mekwei (Menggwei, and apparently Demenggong (Demenggeng)-Waibron Bano, described by Capell in the area in which Anceaux locates the Mekwei)

(8) Uria.

FREDERIK HENDRIK ISLAND

The only remaining group of languages in West New Guinea for which relationships to larger groups of languages have not yet been suggested are those found on Frederik Hendrik Island, just west of southeastern West New Guinea. Capell (1962) reports, "there is as yet no indication of the relationships of the three amongst themselves". The three are:

Kimaghama, 3,000 speakers

Riantana, 1,100 speakers

Ndom, 450 speakers.

Capell maps also Oser, which may be a dialect of or an alternate name for one of the above.

UNCLASSIFIED LANGUAGES OF THE WESTERN DISTRICT OF PAPUA

Between the languages of the Ok family in the northwestern part of the Western District and the languages of the Kiwai family on the coast, there are a number of languages for which so little information is available that it is impossible to state relationships among them.

One of the most northern of these is Debepare spoken by some 2,000 people north of Lake Murray.

In the area around the southern end of Lake Murray and southward on the Fly River are several languages reported by Capell to share, at least, the feature of having velar fricatives and back velar stops:

Kuni, spoken west of Lake Murray on the Fly River, may share these phonetic features with the other languages listed below

Dea, spoken east of Lake Murray

Zimakani, spoken on the Fly River south of Lake Murray by 1,200 people

Suki, spoken by 1,000 people on the Fly River below the Zimakani, is the southernmost language for which Capell specifically mentions the velar feature.

Wiram, a name used by Williams (1936) as a cover term for languages of the Suki-Garamudi area, may represent another language of the group, as may

Garamudi.

The languages in the area south of the Fly River between the West New Guinea border and the Fly Delta are divided into four additional geographic groups by F. E. Williams (Papuans of the Trans-Fly, Oxford, 1936). Languages included in this area are listed from west to east:

Semariji, with a population of 363 in 1926, and in the same geographic group,

Gambadi, with a 1926 population of 454, which may belong to the same family, since Capell reports that they 'appear to be closely connected with each other'.

Keraki, with a population of 406 in 1926

Mikud

Tagota, in the same geographic area as

Weridai.

Additional languages mentioned by Capell in the same area are:

Boka

Oriomo, spoken by around 500 people, and

Kunini, just east of the languages listed above, and to the north of these two along the south bank of the Fly are:

Anduru

Mataru
Urada
Sapara
Madiri.

Capell's (1962) map of the Western District of Papua shows three languages in the area east of the Strickland River and north of the Fly River and also north of the Kiwai languages; these three are, however, not mentioned in the text:

Jupei
Bosavi
Kamura.

KIWAI PHYLUM

To the languages of the Kiwai family, below, Loukotka (CA 3.415) relates by lexicostatistics the following languages, which, for lack of information on any closer or family relationships among them, are here considered language isolates in a Kiwai phylum:

Adiba
Gaima
Girara
Gogodara, spoken from the north bank of the Fly inland toward the Aramia River
Tirio.

Miriam (Mer), spoken on Murray Island in the eastern Torres

Straits, is said to be very similar in structure to Kiwai, and may also belong to this phylum. (For a discussion of Miriam phonology and its influence on neighboring Australian languages, see Indo-Pacific Fascicle Six, 6.2.)

Kiwai Family

Languages of the Kiwai (Kiwai-Kerewa) family are spoken by at least 20,000 people along the coast from Mabuduan in the Western District to the east as far as the Era River in the Gulf District, inland along the rivers and on the islands of the Fly Delta and near the coast. Wurm (1960), describes the family as consisting of 'eight very closely interrelated languages — some of which are almost dialects'. From Wurm's Study in the Kiwai Languages (Acta Ethnologica et Linguistica, 1951) these appear to be:

(1) Island Kiwai, with 3,000 native speakers plus others who know it as a second language, divided into at least three dialect groups — Kiwai Proper, Doropodai and other Kiwai Island groups, possibly Kubira, and perhaps Hiwi and Hibaradai

(2) Coastal Kiwai, with less speakers than Island Kiwai, includes three dialects: Mawata-Turituri, Peran and Sui

(3) Doumori (Domouri), including possibly Pagona as a dialect

(4) Wabuda, spoken in two island dialects — Wabuda and Gesoa — and one coastal dialect — Sogero

(5) Sisiaini, spoken on the Bamu River in possibly four dialects — Sisiaini, Maipani, Oropai and Damerakaram

(6) Dibiri, also spoken on the Bamu River, in three dialects — Dibiri, Pirupiru and Buniki

(7) Kerewa-Goari-Turama River, also called Goaribari, spoken on the lower Turama River and in the southern part of the Kikori Delta in the Gulf District by some 12,000 people

(8) Urama-Iwainu-Era River, spoken east of Kerewa in the Gulf District.

UNCLASSIFIED LANGUAGES OF THE GULF DISTRICT OF PAPUA

Inland from the languages of the Kiwai family in the Gulf District and between the Kiwai languages and the languages of the Vailala-Orokolo-Toaripi family further east on the coast are a number of languages about which almost nothing is known. Those mentioned or shown on the map of the district by Capell (1962) are given below.

Capell reports that 'much vocabulary is common' in the languages of the 'upper Turama and Paibuna Rivers, probably including the Omati River'. Languages named for the area include Kibene, Kasere, Waiiemi, and possibly Wariadai, which appears on the border between the Western and Gulf Districts.

At the delta of the Tuarama River the map shows Pepeha on the east and Morigi Island on the west; neither of these is commented on in the text.

North of the Kikori Delta and the Kerewa-speaking people are the Dumu (Rumu, Kairi), and immediately to their east, the Poromi. Both languages are reported to be 'quite distinct' from Kerewa and from each other.

To the north and east of these in the area of Mt. Favenc are the Harahu, estimated to number about 5,000, and the Songu. A little further north, on the islands in Lake Tebera, are some 1,000 speakers of Mamisu.

To the east of these people, in the area near the border with the Eastern Highlands of New Guinea, are the Pavaia, whose language belongs to the Central New Guinea Macro-Phylum discussed below.

Below the Pavaia, on the eastern side of the Purari River in the coastal area are the Koriki. Koriki (Namau), spoken by around 15,000 people, has been studied and used by missionaries for about fifty years; some native speakers are literate in this language.

KUKUKUKU FAMILY

Wurm (1960) lists as one of the 'groups of interrelated languages' of New Guinea 'a group [with 'tens of thousands of speakers'] consisting of several [but presumeably not all] of the languages spoken by "Kukukuku" type natives on the Watut River in the Menyamnya area and to the east and west of the latter'.

Capell mentions specifically only two of the Kukukuku languages, Obi and Kavipori, which he locates further south in the Morobe District, extending into the northeastern part of the Gulf District, reporting that they are apparently related to Samberigi, which he shows on a map as further north and west in an area shown as uninhabited on Wurm's more detailed maps. Wurm later (AA 66, No. 4, Part II, p.80, 1964) lists (and elsewhere maps) four "Kukukuku" languages, interrelated on [a] family level', spoken in the southeastern tip of the Eastern Highlands District. Their combined list of members of the family, which presumeably includes other languages, is:

(1) Obi

(2) Kaviropi

(3) Samberigi, perhaps to be identified with Simbari, below

(4) Simbari, with about 1,900 speakers

(5) Wantakia, with 1,000 to 1,500 speakers

(6) Barua, with 1,000 to 2,000 (S. I. L. reports 5,000) speakers

(7) Yagwoia (Yeghuye, Menyamnya), with 1,500 speakers in the Eastern Highlands and perhaps another 1,500 speakers in the western part of Morobe.

Capell's map of the Morobe District shows two other language names in the same area, which may represent two additional languages in the family:

(8) Banir, on the Eastern Highlands-Morobe border, above the Yagwoia

(9) Mumeng, east of the Watut River. Mumeng is probably the language identified by S. I. L. members as Buang-Mangga spoken by 7,000 people near Mumeng.

VAILALA-OROKOLO-TOARIPI FAMILY

Along the eastern coast of the Gulf District, east of the delta of the

Purari River, are spoken the languages of the Vailala-Orokolo-Toaripi or Kerema family. A total of over 30,000 people speak the four languages of this family.

The first three of the languages listed below are said to be much more closely related to each other than any of them is to the fourth.

(1) Orokolo, spoken immediately east of the Purari delta by some 12,000 people

(2) Vailala, east of the Orokolo, 5,000 speakers

(3) Kerema, east of Vailala, 3,000 speakers

(4) Toaripi, 10,000 speakers of various dialects including Elema and Milareipi.

UNCLASSIFIED LANGUAGES OF THE CENTRAL DISTRICT OF PAPUA

The people of the western coastal area of the Central District speak Austronesian languages, but those of the interior behind them speak a number of non-Austronesian languages about which little is known. Names of tribes, or languages, in the area include:

Afoa

Fuyuge

Apekove

Hunjara, on the Northern District border, south of Mt. Scratchley.

In the eastern half of the Central District Capell maps the following non-Austronesian languages in the area between the languages of the Koita-

Koiari family and those of the Mailu phylum:

Mulaha, on the coast just south of Motu (an Austronesian language)
Kwale, inland from Mulaha
Seramina and
Kokila, both further inland from the two above
Oraiiu, and
Gebi, both inland from Macfarlane Harbor.

KOITA-KOIARI FAMILY

In the area around Port Moresby in the Central District and inland as far as or over the border of the Northern District, the languages of the Koita-Koiari family are spoken by a population estimated as numbering in the thousands.

(1) Koita is spoken around Port Moresby by people among whom many Motu have settled; all Koita are said to be bilingual in Motu, an Austronesian language

(2) Koiari is spoken immediately inland from Koita

(3) Efogi

(4) Biagi is more distantly related to the three preceding languages than any other of the three are to each other. It is spoken in a wider area near the border of the Northern District.

(5) Wovanga, spoken in the Northern District, may represent another language of this family, or may be only remotely related to it.

(6) Chirima, on the Central-Northern District border, may also be only remotely related to the family.

MAILU PHYLUM

On the basis of 'lexicostatistical studies which are as yet not terminated and are unpublished', Loukotka presents 'preliminary'groupings of some of the languages of southeastern Papua. Loukotka's findings are presented as lists of names arranged in terms of 'groups' with numbered subdivisions, each of which includes from one to eight names, without comment on degrees of relationship involved in either the subgroups or the larger groups.

Loukotka's 'groups' are here labelled 'phyla', rather than 'families', because the information on most of the languages in the area consists of such 'brief vocabularies only' that it would as yet be impossible to show family relationships (by detailed reconstruction of the proto-phonology), except where close family relationships are clear by inspection; but the relationship between all the members of every 'group' cited is apparently not close enough to be seen by inspection, as suggested by Capell's statement (demonstrated by a very brief vocabulary, 1962, pp. 148-9) that two of the subgroups of one of Loukotka's 'groups' 'show no obvious relationship'. When more data are available for comparative work on these languages, it may, of course, be demonstrated that these 'phyla', or some of them, are actually families.

There is no clear evidence as to whether those of Loukotka's subgroups with more than one member are single languages spoken in more than one dialect or sets of very closely related languages. Of the names mentioned by Loukotka which are shown on Capell's maps (1962), those belonging to the same subgroups are shown as immediately adjacent to each other, with rare exceptions; in the case of one of the subgroups — that including Mailu, below — Capell speaks of other members, as Magori, as 'dialects', and Wurm speaks of one of the groups, for which Loukotka has six subgroups, as consisting of 'perhaps five . . . distinct languages'. Each of Loukotka's subgroups is, therefore, treated as a single language below, though some of those for which several 'dialects' are listed may actually be more than one language.

Languages of the Mailu phylum are spoken along the coast of the eastern end of the Central District, with some overlap into the Milne Bay District, and inland well into the Northern District. They are listed by Loukotka (CA 3.415) as:

(1) Neme-Buari-Okaudi-Doriaidi-Oiwa-Moikoidi, centering in the southern bulge of the Northern District; Abia mapped by Capell in the same area may also be a dialect of this language

(2) Dibogi-Bori (Boli), slightly further north and east in the Northern District

(3) Kororo, still further north

(4) Saroa-Bauwaki (Bawaki)-Yabura-Avini, ranging from the Northern

District into the eastern interior of the Central District

(5) Domu-Morawa-Keveri-Merani-Monoma, along the coast and into the interior of the Central District

(6) Lauuna

(7) Mailu-Magori-Magi-Dedele-Domara-Burumai-Nemea-Lauwa, along the easternmost coast of the Central District and the western edge of the Milne Bay District

(8) Binahari-O'oku, inland from language (7), above.

DIMUGA PHYLUM

The indigenous languages of the southeastern half of the Milne Bay District are all Austronesian, while, except for one or two languages on the east coast, those of the northwestern half are all non-Austronesian. Apart from Mailu on the extreme southwestern coast, nearly all the languages of the northern half of the Milne Bay District appear to belong to one cognate language group — Loukotka's 'Dimuga group', here labelled a phylum (see the comment under Mailu phylum, above). These are listed below in a roughly north to south, west to east order, as far as their locations are shown on Capell's map of the Milne Bay District (1962).

(1) Pue-Maneao-Kwatewa-Galeva

(2) Dimuga-Jimajima-Udama-Nawp

(3) Bagoi-Liba-Paiwa

(4) Tevi-Pumani

(5) Gwoira-Gwoiden-Makiara.

Two names not otherwise accounted for are shown in the same area on Capell's map, Umanakaina on the southern side of Goodenough Bay, where it is flanked by languages of the Austronesian family — to which it may also belong — and Moibiri along the northern border of the district, with one language of the Binandere phylum south of it, so that Moibiri might also belong rather to the Binandere phylum.

YELE

Only one of the languages of the islands of the Milne Bay District is not Austronesian — Yele, spoken by some 1,500 people on Rossel Island.

UNCLASSIFIED LANGUAGES OF THE MOROBE DISTRICT

Capell's language list for the Morobe District (1962, pp. 83-8), includesover 100 non-Austronesian names, largely gleaned from C. A. Schmitz, Historische Probleme in Nordost-Neuguinea (1960). Fifteen of these names are either mentioned in the text as belonging to the Kâte (Huon Peninsula) phylum or are located on the Huon Peninsula on the accompanying map of the Morobe District. Another half dozen or so can be accounted for as languages belonging to other groups — the Kukukuku family, the Binandere phylum, or the East New Guinea Highlands micro-phylum. On the basis of fieldwork in the area, Donald Davis has identified seventeen of the names as names of dialects of, or villages which speak, one language — Wantoat, below. In addition to probable synonyms for, or local areas of, languages otherwise listed, the remaining names represent an undeterminable number of other languages in the Morobe District on which no linguistic information is available.

Because so many of the names on Capell's list have been identified as village names with no reference to language, it would be meaningless to repeat the remaining names here. However, a number of languages of the Morobe District which do not appear to belong to the Kâte phylum or the Kukukuku family are being studied by members of the Summer Institute of Linguistics. Donald Davis supplied the following information on these upon which linguistic work is being done.

Mid-Waria (Guhu Samane) is spoken by about 4,000 people on the middle course of the Waria River near Garina in the southern part of the district.

Wantoat-Awara-Wâpu is spoken on the headwaters of the Leron River in the north central part of the district by about 7,000 people. Villages in which Wantoat is spoken include: Arawik, Bumbum, Bungam, Dorim, Ewok, Ginonga, Gusiparang, Gwambon, Gwangwangwak, Gwapnsit, Kubung, Manambam, Matup, Taput and Gabmorbi. (Wâpu is the native name of the dialect spoken between the villages of Dorim and Gusiparang; 'Mina', sometimes reported as another dialect or language, is the word for what in one of the dialects.)

Kunimaipa is spoken by 8,000 people from south of Garina in the Morobe District over the border into the Central District.

Weri (Weli) is spoken north of Garina by about 19,000 people.

Yabi (Unguna) is spoken north of Menyamnya by 800 people.

Langimar is spoken near Menyamnya by 625 people.

Biangai is spoken near Wau by 880 people.

Erap is spoken on the Erap and Rumu rivers just north of Markham by 2,000 people.

UNCLASSIFIED LANGUAGES OF THE HIGHLANDS DISTRICTS

On the fringe areas of the Highlands Districts are spoken a number of languages which do not appear to be related to the languages of the Central New Guinea Phylum. Besides the languages of the Kukukuku Family, these include the following, listed by Wurm, AA 66, No. 4, Part 2.

Waisera, with 200 speakers

Ganati, with 300 speakers

Wapi, with 300 speakers (apparently not the Wapi which is a dialect of Enga in the West-Central Family)

Kewa (Hewa), with 2,000 speakers in the northwestern part of the Western Highlands, is 'perhaps' related to Fasu and Kaibu, below.

Fasu, with 350 speakers in the extreme south central part of the Southern Highlands District, may be related to Kewa, and is more probably related to Kaibu.

Kaibu, with 400 speakers north of the Fasu, may be a dialect of the same language as Fasu.

Other languages, spoken in the western part of the Eastern Highlands District, reported by members of the Summer Institute of Linguistics include:

Gorora, spoken south of the Purari River

Lagaria (Siake), spoken south of the Purari River near the confluence of the Mai and Purari Rivers

Boumai (Bomai), spoken south of the Purari River. (Donald Davis reports that this may be the general designation of the Chuave for south people and so may represent more than one group.)

Jani, spoken south of the Boumai area,

And on the southeastern border of the Eastern Highlands District: Waffa, with 900 speakers.

MADANG (BOGIA) PHYLUM

Some relationship apparently exists among nearly all the languages of the Madang District from its northwestern border with the Sepik District along the coast and immediately inland as far east as the northern side of Astrolabe Bay beyond Madang. The relationships between neighboring languages in some of the sub-areas are close enough to be obvious, but the relationships between the languages of different areas are more remote and less certain. No comparative work has yet been done, but Capell reports (CA 3.373), "There is probably at any rate a phylum connection of the Bogia group with the Mugil languages and those in the hinterland of Madang." (Capell also reports for these languages the occurence of a feature of verb morphology shared by the languages of the East New Guinea micro-phylum and the Kâte phylum, but this shared morphological feature would not be sufficient to demonstrate a relationship of the Madang phylum to the Central New Guinea macro-phylum.)

The geographic groups of languages listed below may actually be language families, or possibly branches of a single family to which a few language isolates are more distantly related.

Western and inland Bogia Sub-district Group ('almost all the languages in Bogia sub-district belong to this one group, with the exception of Monumbo, and possibly the Gamai speech', Capell, 1962, p.50):

(1) Nubia-Bosngun, with the Nubia dialect spoken on the coast and the Bosngun inland to or beyond the border of the Sepik District

(2) Gamai, spoken north of the Nubia-Bosngun, is possibly not related

(3) Kayam, spoken at the mouth of the Ramu River

(4) Makarub (Mikarew) spoken inland, south of Bosngun

(5) Igom, spoken southwest of Makarub, may be a dialect of Tanggum

(6) Tanggum, spoken east of Makarub

(7) Murusapa, spoken southeast of Tanggum.

East-of-Bogia Coastal Group ("bearing a relationship to each other that might almost lead one to call them all dialects of the same language . . . they are related in many ways to the Tanggum-Makarub group." Capell, 1962, p.52):

(8) Banara

(9) Ulingan

(10) Bunubun

(11) Vanambere, spoken immediately inland from Ulingan and Bunubun

Mugil and Madang Hinterland Group:

(12) Vaskia (Woskia) spoken by 3,500 people on the northern half of Karkar Island

(13) Saker

(14) Garus, said to be particularly closely related to languages numbered (15) through (18) below

(15) Nobonob

(16) Uti

(17) Rempi

(18) Kamba

(19) Amele, with dialects spoken at Girawa (Bagasin), Lagaha and Harip.

Ramu River Group ('these languages show points of contact with Group *c* [the Western and Inland Group] in structure but very little [but apparently some] in vocabulary', Capell, CA 3.373):

(20) Anaberg

(21) Atemble.

UNCLASSIFIED LANGUAGES OF THE MADANG DISTRICT

Apart from the languages of the Madang phylum, above, and the Austronesian languages along the coast, the languages of the rest of the Madang District — the inland central area of the district and the Rai coast and its hinterland in the south — are largely unknown and hence unclassified.

2

On the coast of the Bogia sub-district from Kosakosa village, west of Bogia, east to or a little beyong Lilau, are spoken two languages which are 'closely' related to each other. These two languages apparently share some (morphological?) similarities with the languages of the Bogia Group of the Madang phylum which surround them, since Capell (1962 and CA 3.373) repeatedly implies relationship by speaking of them as part of the 'Bogia group' (e.g., "This short word list [from the two languages in question, and seven languages of the Bogia Group] shows the groupings sufficiently clearly for it to appear that there is a certain amount of interrelationship throughout. . ."). However, in other paragraphs they are explicitly excluded from the Bogia Group. Further comparison may show that they belong to the Madang phylum or a larger phylum including the Madang phylum.

The two languages are:

(1) Monumbo, with 209 speakers in 1936

(2) Ngaimbom.

Tribes named in the interior of the Madang sub-district are:

Boskien

Yaben

Parawen.

Tribes on the south side of the Ramu River include the: Aiom (Aiome).

Languages of the Rai Coast sub-district, in which apparently 'a large number of languages exist, spoken in each case by only a few people, and within very limited areas' (Capell, 1962), include:

Bogadjim, spoken at the head of Astrolabe Bay, as is Bongu, below
Bongu
Sunggum, inland, south of Bongu, as are the following eight:
Mobab
Maipang (Ngaing), with more than 850 speakers
Yaugang
Baru
Asang
Neko, with 182 speakers
Ndau.

Further inland, on the north side of the Ramu River are:
Aiau (with a question mark on Capell's map)
Domuna
Nahu
Raua, of which Capell says, "There is certainly no link at all between Raua and either the coastal languages or those of the Central Highlands." (1962, p.56)

On the coast east of Swit are:
Gira
Gumbi
Wab

Sawi

Mur.

UNCLASSIFIED LANGUAGES OF THE SEPIK DISTRICT

Little or no linguistic work has been done on most of the non-Austronesian languages of the Sepik District; for many parts of the district only the names of tribes or villages are known, and for some parts even these are unknown.

The following names, with occasional comments on location, population or possible relationships with other languages, from Capell (1962), were obtained from a variety of sources, mostly missionary, some ethnological, and, more recently, Laycock's survey work, which was relatively superficial outside the area of the Ndu family (the Middle Sepik). The languages are listed in a roughly west to east order along the coast and then in an east to west order back up the Sepik through the interior.

Nori, spoken in a single village

Krisa, also spoken in a single village

Bembi, with a population of 1,854 in 1958

Negira, with a 1958 population of 406

Kilmeri, with a 1958 population of 1,886

Kusa, with a 1958 population of 468

Valman, 600-800 speakers

Wapi, spoken inland from Aitape in a large area which had a population of 12,704 in 1949, may include the next four groups listed below as dialects, or closely related languages:

Orlei, spoken in and around Lumi in the southern part of the Wapi area

Yapunda, with 200 speakers east of the Wapi area

Lausaranga, with 600 speakers east of the Yapunda

Alatil, with 400 speakers east of the Lausaranga

Maimai

Wasepnau, spoken south of Aitape in the region of Perembil

Wam, spoken 10 miles southwest of Aitape, is reported to be a different language than the Wam of the Wewak area

Kamnum, with 2,100 speakers south of the Wapi area

Edawapi, spoken south of Kamnum

Lugitama, with 400 speakers east of the Edawapi

Elkei

Au

Dia

Sinagen

Koroko, spoken on the coast, northeast of Wapi

Palei may include as a dialect:

Sambu, which has 2,550 speakers

Kombio, with about 1,000 speakers, may include as a dialect:

Alauagat, with 300 speakers

Edagen

Metru, with 600 speakers

Anamagi, the language of the Anamagi Valley, with 1,000 speakers, may include as a dialect:

Malek, spoken to the west of the Anamagi

Metan, 500 speakers

Minendon, 400 speakers

Wanap, 750 speakers

Sokorok, 259 speakers

Makarim, 1,500 speakers

Yauan

Rarihiʔip, 100 speakers

Indoginogosima

Womsak, with 1,000 speakers on the coast

Wam, with 2,000 speakers south of the Womsak — a different language than the Wam near Aitape

Urat, spoken in three dialects by some 3,600 people south of the Wam

Urim, south of the Urat

Gawanga, with more than 4,000 speakers, also south of the Urat

Wosera (Wasera), spoken between Gawanga and Abelam (of the Ndu family)

Bumbita

Arapesh (But), with a large number of speakers and 'considerable differences between the dialects'; the coastal dialect is But

Muhiang, with 5,000 speakers, is related to Arapesh

Sabari

Mandi, further east on the coast, separated from the Arapesh by languages of the Ndu family, is spoken by 80 people who also speak Boikin (an Ndu language), Terebu (an Austronesian language), and Tumara, the non-Austronesian language spoken immediately inland from them.

Tumara, said to be different from Mandi, above

Kaiep speakers on the coast east of the Mandi also speak Tumara

Muniwara

Bungain

Yaugiba

Kamasau, spoken in about five villages

Urimo

Murik is spoken along the coast west of the mouth of the Sepik River.

Buna is spoken by 935 people inland from Murik.

Angoram is spoken south of Buna in a wider area along both sides of the Sepik by 3,986 people.

Adjoria, with about 370 speakers, is spoken south of the mouth of the Sepik.

Watam, with 126 speakers to the north of Adjoria, is possibly a dialect of the same language.

Kopar, with 101 speakers, may also be a dialect of the same language, a language including Adjoria and possibly Watam.

Aion, with about 560 speakers south of the eastern Angoram

Porapora, with about 400 speakers south of the Aion

Gorovu, with 42 speakers south of the Porapora

Kambot, spoken south of the central Angoram

Banaro, with 1,000 speakers south of the Kambot, may be related to Kambot.

Biwat (Mundugumor) is spoken on the Yuat River south of the western Angoram.

Kaimba-Mongol-Langam, with perhaps 500 speakers in three villages south of the Biwat

Changriwa, with 462 speakers may be an additional dialect of Kaimba-Mongol-Langam.

South of Lake Chambri and the languages of the Ndu family, the following seven names are listed:

Chambri, with a population of about 950

Bisis

Wasare

Watakatowi, with only one village

Mari

Yerakai, with a population of 392

Wogu, with a population of 78.

Kwoma is spoken by 2,231 people on the northern side of the Middle Sepik, west of most of the languages of the Ndu family.

Mayo (Yesan-Mayo) is spoken on the Sepik, east of Kwoma.

Wogamusin with 336 speakers on the Sepik west of the Ngala and Mayo, is the easternmost member of what may be a family of languages spoken along the Sepik from the Wogamusin to the West New Guinea border.

Chenapian, with 146 speakers northwest of the Wogamusin, appears to be related to Wogamusin.

Iwam, with 1,160 speakers, is more certainly related to Wogamusin.

The next two languages west on the Sepik, with 668 and 600 speakers, respectively, are unknown, but reportedly different from each other. To the west of these two is

Abau, extending to the West New Guinea border, is definitely related to Wogamusin.

Four languages on which no information is available are spoken in the Green River area north of Abau:

Amanab

Amini

Yuri

Samenai.

KARIMA PHYLUM

A number of names of non-Austronesian languages spoken in New Guinea appear in linguistic and anthropological literature without specification of the location or classification of the languages.

These include four languages mentioned by Loukotka (CA 3.415) as comprising a 'Karima Group', here treated as a phylum for reasons commented on under the Mailu Phylum, above.

Karima

Barika

Kibiri

Dugeme.

NON-AUSTRONESIAN LANGUAGES PERIPHERAL TO NEW GUINEA

Bougainville

Little is known of the non-Austronesian languages of northern Bougainville. They are listed by Capell (1962) as:

Konua, with 19,000 speakers
Keriaka, with 700 speakers
Rotokas, with 1,450 speakers
Eivo, with perhaps 1,500 speakers,

Southern Bougainville Family

The non-Austronesian languages of southern Bougainville apparently all belong to the same family. They are reported by Capell (1962) to be fairly closely related — 'so much so that in many instances soundlaws can be stated that apply to all five languages . . . all these languages have a proportion of their vocabulary in common'. The five languages are:

Telei (Rugara, Buin), with 7,000 speakers
Sibbe (Nagovisi), 3,500 speakers
Nasioi-Koianu, 3,100 speakers
Motuna (Siwai), 5,000 speakers
Baitsi (Koromira), 850 speakers.

Solomon Islands

Several non-Austronesian languages, of which only Bilua is well-known linguistically, are spoken on islands of the Solomons. These include:

Bilua, spoken on Vella Lavella Island

Bañata, spoken by some 800 people on Rendova Island

Kazukuru, at least formerly spoken in northwestern New Georgia, as are

Guliguli and

Dororo, both of which appear to be so closely related to Kazukuru that all three may be dialects of one language.

Lavukáleve (Laumbe), spoken on the Russell Islands

Savosavo, spoken by several hundred people on Savo Island.

In addition to these, in the center of Santa Isabel Island there are a number of small 'bush' tribes whose languages are so little known that it is uncertain whether they are Austronesian or non-Austronesian. Capell suggests that they may be non-Austronesian with some loanwords from Banoni, an Austronesian language (see AL 6:9.19-20 for a list of these languages, hesitantly included by us in Austronesian).

Santa Cruz Family

Three non-Austronesian languages are spoken east of the southern Solomons on the islands of the Santa Cruz Group; these are reported by Davenport (CA 3.400-2) to be related to each other.

(1) Reef Island Santa Cruz (Nifiloli, Nivo) spoken by some 3,100 people living in twenty villages on the Main Reef Islands, with little or no dialect variation, is less closely related to either of the two languages listed below than they are to each other.

(2)North West-South Central Santa Cruz (Ndeni) is spoken on Santa Cruz Island; the North West dialect of this language is diversified into at least ten subdialects (including Nelua and Te Motu) and spoken by about 2,000 people living in 26 villages along the northern and western and part of the southern coasts of the island; however, the South Central dialect of this language spoken with only minor subdialect differences by 341 people living in three villages near the central part of the south coast, is mutually intelligible only with neighboring Northwestern dialects.

(3)South East Santa Cruz is spoken by 171 people living in two villages on the eastern part of the south coast of Santa Cruz Island.

New Britain and New Ireland

Capell (1962) lists or maps the following non-Austronesian languages spoken on the islands of New Britain and New Ireland.

New Britain:

Taulil, spoken by a small group on the northern slopes of the Baining Hills

Gaktai (Mali)

Sulka

Idne

Bau

Maseki

Kol

Makolkol

Bileki

Butam, apparently now extinct

Baining, spoken by between four and six thousand people with a number of dialect divisions including Chachat, Uramot, and Asimbali.

New Ireland:

Nusa,

Naiyama and

Letatan are listed by Loukotka (Classification des Langues Papoues, 1957), as the three non-Austronesian languages of New Ireland, but Panaras is reported by Capell (CA 3.375) to be the only non-Austronesian language which he was able to locate on the island; however, Capell (1962) indicates another on the map of New Ireland —

Lelet.

Timor and Alor

Besides those non-Austronesian languages in the northern half of Halmahera listed above in the West Papuan phylum, non-Austronesian languages are spoken on at least two other islands west of New Guinea — Timor and the neighboring Alor in the Lesser Sundas.

Capell (CA 3.372) mentions only two of the languages on Timor,

Bunak and

Makassai;

names mentioned in other sources include:

Dagodá

Kairui

Kemak

Midik

Naumik

Waimaha.

The following names are listed for the non-Austronesian languages of Alor by Salzner (1960):

Kelong, including the Makunabeiń dialect

Pandai

Kabola, including the Hamap dialect

Abui (Baruë, Barawahing, Namatalaki), including the dialects: Abui, Makadai, Kaluiwa, Laral

Kawél (Limbur)

Kamáng

Maneta

Wululi

Lumu

Seboda

Kolana-Wersiń

Kui-Kramang, including the Malua dialect.

5.2. The sample of Wantoat sentences which follows was transcribed and translated by Donald Davis. From this corpus it appears that the vowel system is of the 2(FB) over N type (with /i u/ over /e o/ over /a/); and that vowel clusters occur (as /ai/, /aiu/, /ia/, /iaa/, /ua/, /oi/, and others), but only restricted length distinctions occur. The low vowel which does not make the FB contrast is written both singly (for short /a/) and as a geminate (for long /aa/). The relation of the semivowels /w y/ to the high FB vowels appearing in vowel clusters (/i/ before and after /a/ and /o/, for example, and /u/ in similar environments) suggests that syllabification is distinguished by the consonantal semivowels. Aside from these semivowels, and the fricatives /s z/, the remaining consonants — stops and nasals — are symmetrical, making the same three linear distinctions:

p	t	k
b	d	g
m	n	ŋ

In the transcription which we follow, ng is written for the velar nasal /ŋ/; and we also follow the transcription in writing as consonant cluster nasal plus voiced stop, a sequence sometimes preceded by voiceless stop (as /tnd/, /pmb/, /pŋg/); but since the prior two-consonant sequence also occurs by itself (voiceless top plus nasal), it might be said that this sequence is sometimes followed by a voiced stop. What does not occur in the observed sequences of nasals and stops may be stated as neither /md mg/ nor /nb ng/, nor /ŋb ŋd/. What does occur in sequences involving both stops and nasals is in part homorganic, hence, the consonant cluster solution may possibly be orthographic for an SGC of nasalization which combines with all stops in the above chart. There remain / ps/ , which is in contrast to / s/ , and rounded velars, / kw ŋw/ .

Beside using the transcription of our source, we follow the conventions explained in other Fascicles of this series for the values of three symbols: major morphemes (cap M) and minor morphemes (lower case m), and the alternating type of morpheme which functions in some phrases as minor morpheme $(\frac{m}{M})$ and in other phrases as major morpheme $(\frac{M}{m})$. But our sample is insufficient for saying much about the $\frac{m}{M} \sim \frac{M}{m}$ alternating phrase function morpheme so often found in Austronesian languages, and in Chinese and SE Asian languages generally; see Wantoat sentences (19) and (20), for examples. So also, we follow these conventions in the explication of the Usarufa sample (5.3) after the Wantoat sample which follows immediately.

What are called Topic phrase + Comment phrase sentences — those numbered (1) to (10), below — are not to be confused with single phrases, for in single phrase interiors the order is modifier-modified; nor are T-phrase + C-phrase sentences to be confused with Subject phrase + Verb phrase sentences. In the following T-phrase + C-phrase sentences, the Comment phrase includes neither embedded subject nor markers for tense or mode.

(1) The dog is tame.

kamun	mbaknga
[dog]	[tame]
M	M

(2) The house is big.

yot mbuyambam
[house] [big]
M M

(3) The food is good.

nanam take
[food] [good]
M M

(4) The tree is tall.

katapnggom mameya
[tree-class marker] [tall]
M - m M

(5) I am angry.

musipma toknga
[stomach- my] [hot]
M - m M

(6) Tamai is from Matap.

tamaita matapnana
[tamai - subj.] [matap- place of origin]
M - m M - m

(7) There are no bananas.

sabung w na
[banana] [none]
M M

(8) There are some sweet potatoes.

sita	kundu	kaya
[sweet potato	some]	[have]
M	M	M

(9) His name is Tangguma.

waapo	umana	tangguma
[that one	name - his]	[tangguma]
M	M-m	M

The phrase interior of the Topic phrase shows modifier-modified order.

In sentence (10), following, the Topic phrase includes a complex embedded phrase, here enclosed in parentheses:

(10) The name of the one whom they took away was Yembianana.

waapa	take	kukingu	umana
[that one	(sing. obj. - take-ing	go-past-3rd pl. subj - nominalizer)	name-his]
M	m - M - m	M - m - m - m	M - m

yembianana
[yembianana]
M

What are called Subject phrase + Verb phrase sentences, as exemplified by those numbered (11) to (20), in most instances differ from sentences of the single Verb phrase type — (21) to (29) — by the addition of a prior Subject phrase; or stated conversely, the single Verb phrase sentences differ from the two phrase sentences by deletion of the prior Subject phrase. However, when an S-phrase marking person is included, the person is always redundantly marked, since an embedded subject is marked in the Verb phrase. However, it is not certain that the S-phrase can be deleted from sentences (11), (12), (13). In the case of sentences (14) to (20), native speakers have been willing to alter what is given here, by deletion of the S-phrase, without being willing to give different meanings to the sentences so altered. In all cases but one, embedded subject in the V(S)-phrase is marked by a closing suffix, and mode or tense is marked by a prior suffix; the exceptional case is found in sentence (17), and is repeated in sentence (20). There is a restriction on the generalization that the embedded subject is marked by a closing suffix; this is so when there is but one embedded subject, but there may be two, as in sentence (26) — or rather, the embedded subject may be twice marked. The whole set — sentences (11) to (29) — have in common the phrase interior structure of the V(S)-phrase.

(11) It is raining.

sopa	tanggak
[rain]	[take-continu.-3rd sing. subj.]
M	M - m - m

(12) The cassowary multiplied.

ngwanamu	mbuyambam	sikut
[cassowary - subj.]	[many	become- past-3rd sing.-subj.]
M - m	M	M - m - m

The interior of the V-phrase in this sentence includes two major morphemes, M (modifier) before M-m-m (modified).

(13) That little red-headed one quit it.

waakesimnda kusiane nggamanu tekut

[that-one-little-subj (head-one red-subj.)] [sing. obj. - put-past-3rd sing. subj.]

M - m - m M - m M - m m - M- m - m

The interior of the S-phrase in this sentence includes a complex embedded phrase enclosed in parentheses; the prior M-m-m serves as modifier, and what is given in parentheses is modified.

(14) He has become important.

umana buyambam singgak

[name - his] [big become-continu.-3rd sing. subj.]

M - m M M - m - m

Here again, in the interior of the V-phrase, the first major morpheme is modifier (M), the second is modified (M-m-m).

(15) He wanted to fall down.

anda pimananggekut

[3rd sing. - subj.] [fall-desiderative-past-3rd sing. subj.]

M- m M - m - m - m

(16) He fell down.

anda pimakut

[3rd sing.-subj.] [fall-past-3rd sing. subj.]

M-m M-m-m

(17) He is able fall down.

anda pimananga

[3rd sign.-subj.] [fall-abilitative]

M- m M - m

This sentence is only an apparent exception to the generalization given above for the set of S-phrase + V-phrase sentences — the closing suffix marks person. In sentence (17) the closing suffix marks mode explicitly, but person implicitly; when the S-phrase is deleted the translation remains unchanged.

(18) I don't want to./ I don't like it.

na mbitaat

[I] [dislike-continu.-1st sing. subj.]

M M - m - m

(19) He did not fall down.

anda ndopimakut

[3rd sing.-subj.] [neg.-fall-past-3rd sing. subj.]

M - m $\frac{m}{M}$ - M - m - m

The prefix for negative in the V-phrase sequence $\frac{m}{M}$ - M - m - m is a by-form of the free form ndua not which does occur in other phrases, as in sentence (20) where we write the symbol $\frac{M}{m}$.

(20) He is unable to fall down.

anda pimananga ndua

[3rd sing.-subj.] [fall-abilitative not]

M - m M - m $\frac{M}{m}$

For the closing suffix in the first word of the V-phrase, see sentence (17), above (M-m). In sentence (20), however, there are two major morphemes in the V-phrase; the first is modifier (M-m) and the second is modified ($\frac{M}{m}$).

(21) I looked.

kakum

[look-past-1st sing. subj.]

M-m-m

(22) He used to tell lies.

kewam yakakut

[lie-talk talk-continu.-past-3rd sing. subj.]

(M-M) M-m-m-m

The compound shown by the symbols (M-M) is modifier before what is modified (M-m-m-m).

(23) I am angry.

toknga nataat

[hot feel-continu.-1st sing. subj.]

M M-m-m

Here again the first major morpheme is modifier (M), the second is modified (M-m-m).

(24) He is lying.

kem yanggak

[lie talk-continue-3rd sing. subj.]

M M-m-m

Modifier (M) - modified (M-m-m).

(25) They are becoming very smelly.

nggawaknga	siknga	sikaing
[stink	intense	become-continu.-3rd pl.]
(M	M)	M-m-m

The compound shown by sumbols in parentheses (M M) is modifier before the modified (M-m-m).

(26) I came in order to eat./ My purpose in coming was that I could eat.

napitude	apmbum
[eat-1st sing. fut. - purposive	come-past-1st sing. subj.]
M - m - m	M - m - m

Here the embedded subject is twice marked — in the modifier (prior to the closing suffix) and in the modified (with the closing suffix marking the subject).

(27) I want to go./ I'm still aware of wanting to go.

kunangge	nataat
[go-desiderative	know-continu. - 1st sing. subj.]
M - m	M - m - m

The embedded subject is not marked in the modifier (M-m), only in the modified (M-m-m); so also in the following sentences, (28) and (29).

(28) I came because I wanted to eat.

nanangge	apmbum
[eat-desiderative	come-past-1st sing. subj.]
M-m	M-m-m

(29) While he was eating he talked.

nayuk yakut
[eat-simulfactive talk-past-3rd sing. subj.]
M-m M-m-m

In Subject phrase + embedded object Verb phrase sentences, the Object is marked by an affix — either a prefix, as in sentence (30), or a suffix, as in sentence (31) — when the domain of Object is restricted to person pronoun. The shape of the embedded object affix is non-identical with the shape of the embedded subject marker which is generally a closing suffix; the object affix is never a closing suffix. In sentences (30) and (31) the subject is also embedded, marking redundantly the subject of the S-phrase in the V(OS)-phrase, which exemplifies double embeddedness.

(30) Your dog bit me.

kamunda nasikut
[dog - your] [1st sing. obj. - bite-past-3rd sing. subj.]
M- m m - M - m - m

(31) He will cook me some food.

ita sangamik
[3rd sing. subj.] [cook- 1st sing. obj. - benefactive-future-3rd sing. subj.]
M - m M - m - m - m - m

Sentences (32) to (37) show double embeddedness in marking subject person and object person in one verb phrase — V(OS).

(32) We have already seen you all.

nggwandanduamang

[completive-2nd pl. obj. - see-continu. - 1st pl. subj.]

m - m - M - m - m

(33) Tell him a lie.

kem iniyo

[lie 3rd sing. obj. - tell- 2nd sing. imperative]

M m - M - m

Modifier (M) precedes modified (m-M-m).

(34) I won't tell him.

ndoiniwik

[neg. - 3rd sing. obj. - tell- 1st sing. fut. subj.]

$\frac{m}{M}$ - m - M - m

(35) I saw you.

nggandupmbum

[2nd sing. obj. - see- past - 1st sing. subj.]

m - M - m - m

The morphophonemics of this language includes replacement of non-similar representations for a given morpheme; for example the major morpheme here has the shape -ndup- or -ndu- when preceded by a minor morpheme for embedded first or second person object; elsewhere the same M has the shape ka-.

(36) Quit it!

teng

[sing. obj. - put - 2nd sing. imper.]

m - M - m

(37) While he was eating, they were working at it.

nayuk	tasiking
[eat-simulfactive	sing. obj.-work-past-3rd pl. subj.]
M - m	m - M - m - m

The modifier (M-m) precedes the modified (m-M-m-m).

Sentences (38) to (42) show Subject-phrase + Object phrase + Verb phrase, with the latter always including an embedded subject marker. Such S-O-V(S) sentences are permutable to O-S-V(S).

(38) He shot his arrow.

anda	sakotna	yapmbut
[3rd sing. - subj.]	[arrow - his]	[shoot-past-3rd sing. subj.]
M - m	M - m	M - m - m

(39) Everyone speaks highly of him.

kupmbamnda	umana	tangenakaing
[all-subj.]	[name-his]	[take-get up-continu.-3rd pl. subj.]
M - m	M - m	(M M) - m - m

(40) Our dog ate your chicken.

kamunimnda	taakngga	nakut
[dog-our-subj]	[chicken-your]	[eat-past-3rd sing. subj.]
M - m - m	M - m	M - m - m

(41) I will tell the cassowary story.

nata	ngwanam	kopap	yawit
[1st sing. - subj.]	[cassowary	story]	[tell-fut. 1st sing. subj.]
M - m	M	M	M - m

In the second or Object phrase, the order is modifier (M) modified (M).

(42) The big birds continue in eating those things.

kwaitmbamu	wanin	nayuk	yuaing
[bird-aug.-subj.]	[those]	[eat-simulfactive	be-continu. - 3rd pl. subj.]
M - m - m	M	M - m	M - m - m

The V(S) phrase shows the order modifier (M-m) modified (M-m-m).

Sentences (43) to (45) differ from the above set only in that the Verb phrase includes embedded Object as well as embedded Subject. In (43), the word including the verb glossed put is modifier to the verb glossed die, and in this phrase two Subjects are embedded; so also in sentence (44), but not in (45).

(43) My father put out the fire.

nanata	katap	tepan	kumbut
[father-my-subj.]	[fire]	[sing. obj. - put- 3rd sing. diff. subj.	die-past-3rd sing.]
M - m - m	M	m - M - m	M - m - m

(44) I saw that my uncle had eaten my yam.

okngata	nakngа	nakutna	kakum
[uncle-my-subj.]	[yam-my]	[eat-past-3rd sing. -relative	see-past-1st sing.]
M - m - m	M - m	M - m - m - m	M - m - m

(45) The big bird ripped up some miam-tree leaves.

kwaitmbamnda	miam	tatak	nzipmandakngakut
[bird-aug.-subj.]	[miam-tree	leaf]	[pl. obj.-rip up - past - 3rd sing.]
M - m - m	M	M	m-M-m-m

In the second or Object phrase, the order is modifier (M) before modified (M).

Sentences (46) to (49) show the profile Object phrase + Verb phrase with embedded Subject, and sentences (50) to (54) show the profile Object phrase + Verb phrase with embedded Object as well as embedded Subject. These profiles are distinguished only by the differences in the interior of the Verb phrase.

(46) I will eat corn.

sangum	napit
[corn]	[eat-1st sing. fut.]
M	M - m

(47) I customarily eat corn.

sangum	atnanggat
[corn]	[assertative - eat - continu. - 1st sing. subj.]
M	m - M - m - m

(48) They cut him up and ate him.

waapa	matake	naking
[that one]	[cut-ing	eat-past-3rd pl.]
M	M-m	M-m-m

The interior of the second or Verb phrase shows the order modifier (M-m) before modified (M-m-m), with Subject marker suffixed to the modified member of the phrase.

(49) They sang a song like this.

wakumu	takngatu	anzing	taiking
[song-focus	class marker-one]	[thus	sing-past-3rd pl. subj.]
M - m	m - M	m	M - m - m

In the sentences which now follow, with profile O-phrase + V(OS) phrase, the number of the embedded Object and Subject is specified in such a way that the Object is marked redundantly as such, but the number of the Object is marked uniquely in the Verb phrase — phrase for sentences (50) and (51), singular for sentences (52) - (54).

(50) They are bringing some bananas.

sabung	pakapukaing
[banana]	[pl. obj. - bring - continu. - 3rd pl. subj.]
M	m - M - m - m

(51) Did you make some arrows?

sakot	pasikuyak
[arrow]	[pl. obj. - make- past- 2nd sing. subj.]
M	m - M - m - m

(52) *We call that little one Nzit.*

waakesimu nzit ngai yenikamang

[that one-little-focus nzit] [thus 3rd sing. obj. - tell-continu. -1st pl.subj.]

M - m - m M m m - M - m - m

(53) *They are bringing a banana.*

sabung takapukaing

[banana] [sing. obj. - bring - continu.-3rd pl. subj.]

M m -M-m-m

(54) *Give me!*

ne nam

[1st sing. ref.] [1st sing. ref. - give-2nd sing. imperative]

M- m m - M - m

In one of the preceding sentences, (51), translated *Did you make some arrows?*, it is the terminal syllable intonation that marks the interrogative. In sentences such as the following, however, lexical selection in the Locational phrases distinguishes a sentence which asks a question, as (55), from sentences which give locational information, as (56); but the profile of both these sentences is L-phrase + V(S) phrase.

(55) *Where are you going?*

nzene kunggayak

[where-to] [go-continu. - 2nd sing. subj.]

M - m M - m - m

(56) They gathered there.

unekan	apmbing
[there-only]	[come-past-3rd pl. subj.]
M- m	M - m - m

Sentences (57) to (60), which follow, show the profile Subject phrase + Locational phrase + Verb phrase with embedded (and redundant) Subject marked, as well as number of Subject (uniquely marked). This S-phrase + L-phrase + V(S) - phrase order is permutable to L-phrase + S-phrase + V(S) phrase. Note that location in time is counted as one kind of specification appropriate to L-phrase, as in (58); permutation is the same, whether location is in time or space.

(57) The food is in the dish.

nanamu	ndopanggwene	yuak
[food-subj.]	[dish-class marker - in]	[be-continu. - 3rd sing. subj.]
M - m	m - m - m	M - m - m

(58) The dog ate it yesterday.

kamunda	kwepna	nakut
[dog - subj.]	[yesterday]	[eat-past-3rd sing. subj.]
M- m	M	M - m - m

(59) His pig is under my house.

ikwawanata	yotna	amakatang	yuak
[pig - his - subj.]	[house- my	underneath]	[be-continu.-3rd sing. subj.]
M - m - m	M - m	M	M - m - m

(60) That tiny bird is there.

kwai	matekuga	sikngа	taketusim	undang	yuak
[bird	little	very	that-one-little]	[there]	[be-continu. 3rd sing. subj.]
M	M	m	M - M - m	M	M - m - m

Various profiles include an Object phrase as well as one or two Locational phrases, and sometimes even a Subject phrase before the V phrase which is always in sentence final. Thus, the profile for sentence (61) is O-L-V(OS); in the Verb phrase the order is first word serving as Object to the second word (glossed see).

(61) I saw a little opossum climb up into that tree.

kapmatekngga	katap	waapakatang	kopan	kakum
[opossum - little - obj.]	[tree	that one - into]	[go up - 3rd sing. diff. subj.	see-past-1st sing. subj.]
M - m - m	M	M- m	M - m	M - m - m

This O-L-V(OS) profile is permutable to a L-O-V(OS) profile.

The profile for sentence (62) is L-O-L-V(OS), with the first L-phrase localizing time, and the second L-phrase localizing space. So also in the profile for sentence (63) which is L-S-L-V(S).

(62) Will you bring your dog here tomorrow?

kwepna	kamunda	ane	takapsa
[tomorrow]	[dog - your]	[here - to]	[sing. obj. - bring - 2nd sing. interrog.]
M	M - m	M - m	m - M-m

(63) Long ago the cassowary flew up high.

tupa	siknga	ngwanamu	enen	mbepmakut
[before	very]	[cassowary - subj.]	[up high]	[fly-past-3rd sing.]
M	m	M - m	M	M - m - m

Sentence (64) shows the profile L-V(S); in the Verb phrase, the modifier (M-m-m-m-m , including suffix for embedded Subject) precedes the modified (M-m-m, including suffix for embedded Subject).

(64) They talked about the one who had been there at the very first.

tupa	siknga	yu kut nggwende	yaking
[before	very]	[be-past-3rd sing. subj.-nominalizer-referent	talk-past-3rd pl. subj.]
M	M	M - m - m - m - m	M - m - m

Sentence (65) shows the profile L-S-O-V(S); in the Verb phrase, the modifier (M-m) precedes the modified (M-m-m, including suffix which marks embedded Subject (redundantly), as well as the number of the Subject (uniquely)). One tested permutation is to S-L-O-V(S). Though the interiors of their Verb phrases differ from (65), sentences (66) and (67) show the same profile, namely L-S-O-V(S).

(65) A very long time ago people from across the way went to extract salt water.

tupa	sikngka	opatang	nanata	nggeya
[before	very]	[across the way	belong there - subj.]	[salt water]
M	M	m	M - m	M

nzitnange	kuking
[extract - desid.	go-past-3rd pl. subj.]
M - m	M - m - m

(66) Long ago the cassowary was like a bird.

tupa	ngwanamu	kwaitnggwen	ndakngakut
[before]	[cassowary - subj.]	[bird - class marker]	[be like - past - 3rd sing. subj.]
M	M - m	M - m	M - m - m

(67) The dog ate the chicken in the garden.

piaatang	kamunda	taak	nakut
[garden-in]	[dog-subj.]	[chicken]	[eat-past-3rd sing. subj.]
M - m	M - m	M	M - m - m

Sentence profile L-O-V(S) for (68) seems reasonable enough (and this is permutable to O-L-V(S)), since space is localized. In sentences (69) and (70) instrumentality is localized in profile L-V(S); alternatively, these latter profiles might be symbolized I-V(S).

(68) He shot arrows from there.

undangga	sakotnda	mutakut
[from there]	[arrow-instrument]	[shoot-past-3rd sing. subj.]
M	M - m	M - m - m

(69) He spreads it around with his foot.

mbaengga	yainggatanggak
[foot-his-instrument]	[spread around - continuative - 3rd sing. subj.]
M - m - m	M - m - m

(70) I'll shoot them with arrows.

sakotnda	ya pit
[arrow-instrument]	[shoot - 1st sing. subj. fut.]
M - m	M - m

Sentence profiles are found in which one or two Locational phrases occur with two Verb phrases. Thus, O-phrase + V(OS)-phrase + L-phrase + V(S) phrase is the profile for sentence (71).

(71) We will cause that person to fall to the ground.

aminu	waapa	tena	kepndakane	pimapik
[person-focus	that one]	[sing. obj. - put- 1st pl. fut.]	[ground - to]	[fall- 3rd sing. future]
M - m	M	m - M - m	M - m	M - m

Sentence (72) shows two complex Locational (in time) phrases before Verb phrase in an L + L - V(S) profile.

(72) Having cut down and cut up some bamboo, and having put them in there and cooked them, they ate.

kwaiuwa	pasike	matake	une	pamuke
[bamboo	cut down - ing	cut up - ing]	[there - in	pl. obj. - put into-ing
M	M-m	M-m	m-m	m-M-m

sake	naking
cook-ing]	[eat-past-3rd pl. subj.]
M-m	M-m-m

Sentences (73) and (74) begin with complex Locational (in time) phrases in an L-O-V(S) profile.

(73) After having walked a long way, he became hungry.

ma	siknga	kusikanga	tomna	natapmbut
[far	very	go-ing-prior action]	[hunger-his]	[feel-past-3rd sing. subj.]
M	M	M - m - m	M - m	M - m - m

(74) After having eaten sugar, I planted taro.

wait	nakenga	komba	kwaikut
[sugar	eat-ing - prior action]	[taro]	[plant-past-1st sing. subj.]
M	M - m - m	M	M - m - m

Sentence (74) differs from preceding sentences in being introduced, as well as concluded, by a Verb phrase in profile V(S) - S - L(time)-L(place)-V(S).

(75) The people who went down came back home

pukuking	aminu	nggatu	yotna
[go down - past - 3rd pl. subj.]	[person-subj.]	[again]	[house-their]
M - m - m	M - m	M	M - m

apmbing

[came-past-3rd pl. subj.]

M - m - m

This sentence may be permuted from V(S)-S-L(time)-L(place)-V(S) to V(S)-S-L(place)-L(time)-V(S).

Sentence (76) differs from the preceding sentences in having two, appositional, Subject phrases in an S-S-O-V(OS) profile.

(76) The big birds which continued to stay there held a conference.

kwaitmbamu	yuangga	poit
[bird - big - subj.]	[be-contin.-3rd pl. subj. - nomin.]	[conference]
M - m - m	M - m - m - m	M

tasiking

[sing. obj. - do-past-3rd pl. subj.]

m - M - m - m

Still other sentence profiles are found with two Object phrases but only one Verb phrase; the two Object phrases may be juxtaposed, and while one is a direct Object and the other not, the order of occurence does not determine the nature of the Object since the order can be inverted in permutations of the same sentence. Thus the O1-O2-V(S) profile of sentence (77) may be permuted to O2-O1-V(S); similarly, the O2-O1-V(OS) profile of sentence (78) may be permuted to O1-O2-V(OS). And the first three phrases of sentence (79) may be permuted in all possible ways before the Verb phrase which remains in sentence-final. Sentence (79), as given below, shows the profile S-O1-O2-V(OS); its possible permutations are:

$$\left.\begin{array}{l} S - O2 - O1 - \\ O1 - S - O2 - \\ O1 - O2 - S - \\ O2 - S - O1 - \\ O2 - O1 - S - \end{array}\right\} \text{before } V(OS)$$

(77) He is cutting down a tree for a fence.

ndamane	katapndaka	pasinggak
[fence-referent]	[tree-class marker]	[cut down - continu.-3rd sing. subj.]
M - m	M - m	M - m - m

(78) I am giving my cowrie shell to you.

sikana	ngge	nggamunggat
[cowrie shell-my]	[2nd sing.-referent]	[2nd sing. ref. - give-continu.-1st sing. subj.]
M - m	M - m	m - M- m - m

(79) My mother is cooking food for the pigs.

mingata	nanam	ikwawae	sayamunggak
[mother-my-subj.]	[food]	[pig-referent]	[cook-3rd pl. beneficiary-benefactive-continu.-3rd. sing. subj.]
M - m - m	M	M - m	M - m - m - m - m

5.3. The Usarufa sentences in this sample are taken from a much larger sample of Usarufa brought from New Guinea to Indiana University by Darlene Bee who had been working with the Usarufa language for several years. Since her 1962 publication of Usarufa Tone and Segmental Phonemes (with Kathy Glasgow, in Oceania Linguistic Monograph 6), Darlene Bee has adopted a simpler set of contrasts for consonants; but the vowel system remains the 2(FB) over N type, with the first of two tones (written / ´/ and / ^ / combining with the high FB / i u/ , the mid FB / e o / , and the low / a/ , while the second tone appears (in the transcription of sentences we cite) to be combined with three of the four higher vowels: / ȇ ȗ ȏ / . The transcription of sentences, which we follow, shows beside the glottal stop, / ʔ/ , three linear distinctions for oral stops,
/ p t k/ ; these are matched by voiced
/ b r g/ .
Two nasals, / m n / , are distinguished, as are two semivowels, / w y/ . Of the three consonant series (stop, nasal, semivowel), only the nasal series, as an entire series, appears in consonant clusters: after the glottal stop for / ʔ n/ , and geminately for both nasals, / nn mm/ . Vowel clusters involve all five vowels, and in the case of the high / i u/ pair, contrast in some syllabic way with sequences in which vowels flank semivowels (as / iy iye iya uy aya aaye/ , and as / uwa/); clusters of three vowels are not found unless a geminate vowel (for length?) before another vowel (as / aaé/) is counted as a three vowel cluster. If geminate vowels are long vowels, the length distinction is restricted; the

sentences show few instances of identical two vowel clusters (as / aa áá oo éé/), and rather more instances of non-identical vowel clusters (as / ai ae ao ái aú ei/). Both vowels and consonants are found in word initial, medial, and final.

Usarufa sentences (1) to (6) consist of a single phrase which we call a Comment phrase rather than a Verb phrase because, unlike Verb phrase which includes an embedded Subject, the Comment phrase does not. (The transcription by Darlene Bee, which we follow, includes hyphen to mark morpheme boundary, and space to mark word boundary.)

(1) It is long.

ayaatáá-re

[long - indicative]

M - m

(2) It is big.

anó - ne

[big - indicative]

M - m

(3) It is a pig.

pó - e

[pig - indicative]

M - m

(4) It is a house.

naa - né

[house - indicative]

M - m

(5) The house is big.

anó na-ne

[big house - indicative]

M M - m

As in Wantoat, the phrase interiors of Usarufa show modifier (M) - modified (M-m) order; a translation which might better point this up is It is a big house.

(6) It is a pig.

pó - go - ma

[pig - stative - nom]

M - m - m

Sentences (7) to (9) show the profile Subject phrase + Comment phrase. The suffix (m) glossed 'nom' by Darlene Bee is an abbreviation for 'nominal' rather than 'nominative'. Compare sentence (5), above, with (7), immediately following.

(7) The house is big.

naa - mmá anó - ne

[house - nom] [big - indicative]

M - m M - m

(8) Is the house big?

naa - mmá anó - nabiyo

[house - nom] [big - interrogative]

M - m M - m

(9) The red house is big.

karogaro ná - mmá anó - ne

[red house - nom] [big - indicative]

M M - m M - m

In the subject phrase the interior order is modifier (M) before modified (M-m).

Other instances of S-phrase + C-phrase now follow, with more complex phrase interiors. Modifier precedes modified in S-phrase of sentence (10), and also in sentence (11), where the modifier is specified to be the possessor by suffix (m). In sentence (12), the tentative profile is S-phrase followed by two C-phrases; a more literal translation might be As for big size, there is a house that is not.

(10) What is this thing?

maa tátáá - ʔá nóe - nabiyo

[this thing-nom] [what - interrogative]

M M - m M - m

(11) Where is the Luluai's garden?

Turúaa - ni yó - mmá náa - ka - rabiyo

[Luluai - poss garden - nom] [interrogative - nonspecific loc - interrogative]

M - m M - m M - m - m

(12) The house is not big.

anó - mma naa - mmá í - miye

[big - nom] [house - nom] [negative - aptitive]

M - m M - m $\frac{M}{m}$ - m

Compare sentences (13) and (14) whose phrases are permutable; the meaning is not changed when what is cited as the second phrase is uttered first, and the first second.

(13) *The house is big*.

naa - mmá anó - mma

[house - nom] [big - nom]

M - m M - m

(14) *The moon is big*.

wíyô - mma anó kiyo - mma

[moon - nom] [big moon - nom]

M - m M M - m

Subject is embedded in all Verb phrases. Sentences (15) to (19) show the profile V(S)-phrase — i.e. each sentence consists of a single Verb phrase.

(15) *He is asleep*.

wa - gu - ra - iy - e

[sleep - stative - past - 3rd per - indic.]

M - m - m - m - m

(16) *Were you asleep*?

wa - gu - raa - no

[sleep - stative - past - 2nd per subj - interrogative]

M - m - m - m - m

(17) I will be dead.

pu - ko - n - un - e

[die - stative - fut - 1st per subj - indic]

M - m - m - m - m

(18) He has finished eating.

na - tu - ka - iy - e

[eat - completive - past - 3rd per - indic]

M - m - m - m - m

(19) It is lost.

aúyo - k - iy - e

[lost - stative - 3rd per - indic]

M - m - m - m

Sentences (20) to (26) show the profile V(OS) — i.e. with Object embedded, as well as with Subject embedded. The embedded Object may be marked by an affix (as the embedded Subject always is); it is so marked in sentence (20). But the embedded Object may be a major morpheme after a prefix (m-M) — i.e. a separate word, as in sentence (21) — which would be followed by a suffix if it were to constitute an Object phrase. In sentence (22), the embedded Object is marked by a prefix, and the word preceding is modifier (M - m). In sentences (23) and (25) and (26) the embedded Object is again a separate word (m-M-m) ending in a suffix which would permit it to constitute an Object phrase; however, it is here included in the V(OS)-phrase because it precedes the verb glossed do which in unambiguous cases also follows the embedded

Object word — e.g. sentences (21) and (24).

(20) I saw it.

a - óna -́ra -́ un - e

[3rd per obj - see - past - 1st per subj - indicative]

m - M - m - m - m

(21) Help me!

ti - waˀnaa u - wo

[my - aid do- 2nd sing. - imper.]

m - M M - m - m

(22) I will ask

ĭ́ta - ma a - óna - n - u - ne

[hear - nom 3rd per obj - see - fut - I - indicative]

M - m m - M - m - m - m

This sentence shows the word order modifier (M-m) before modified (m-M-m-m-m).

(23) I am sad.

ti - ru - mmá ké - iy - e

[my - liver - nom pres cont - do - 3rd per - indic]

m - M - m m - M - m - m

(24) He is very much afraid.

áá ôri ké - ga - iy - e

[3rd pers poss - ear very pres cont - burn - 3rd per - indic]

m - M M m - M - m - m

The word-order here is embedded Object (m-M), modifier (M), modified (m-M-m-m).

(25) He is angry.

á - ya - mma táiʔ ké - iy - e
[3rd per poss - intestines - nom bad pres cond - do - 3rd per subj - indic]
m - M - m M m - M - m - m

The word-order is embedded Object (m-M-m), modifier (M), modified (m-M-m-m).

(26) He is very angry.

ôʔ a - ya - mma ké - mara - iy - e
[other 3rd per poss - intestines - nom pres cont- put - 3rd per subj - indic]
M m - M - m m - M - m - m

The word-order here is modifier (M) before modified which is embedded Object (m-M-m) and finally the Verb (m-M-m-m).

Sentence (27) shows the profile separate Subject phrase + V(S) — i.e. Verb phrase with embedded Subject; when the Subject is not embedded, we distinguish the phrase as a Comment phrase (see above) rather than as a Verb phrase. Accordingly, the profile for sentence (27) is S-phrase + V(S)-phrase, while the contrasting profile for sentences (28) to (30) is S-phrase + C-phrase.

(27) There is a big house.

anó na-mma ké - iy - e
[big house-nom] [pres cont - do - 3rd per - indicative]
M M - m m - M - m - m

(28) There is no big house.

anó na-mma ĭ́ - miye

[big house-nom] [negative - aptitive]

M M - m M - m
m

(29) That is not edible.

mi táˀtáá - ˀá ĭ́ - nái - yaˀtaa - re

[that thing - nom] [neg - eat - thing - indicative]

M M - m (m - M - M) - m
M

(30) Is the round leaf edible?

tuˀû ana-ma náĭ́ - yátáá - rábĭ́yó

[round leaf-nom] [eat - thing - interrogative]

M M - m (M - M) - m

Sentences (31) to (33b) show profile S-phrase + V(S) phrase, with the Verb glossed do in each sentence and appearing as modified after modifier(s) glossed big (31) or bad (32) or noise (33a) or dirt very (33b). Sentence (34) has its V(OS) interior serving as modified after the modifier glossed liver — i.e. liver do is literal for feel sorry.

(31) The house is big.

naa - mmá anó ké - iy - e

[house - nom] [big pres cont - do - 3rd per - indicative]

M - m M M - m - m - m

(32) The place where he sleeps is messy.

we-nĩ́ wa-ĩ́na - pa - ˀ taĩ́ˀ umá-gu-ra-iy-e

[he-poss sleep - 3rd per subj - loc - nom] [bad do-stative-past-3rd per subj-indic]

(33a) The dog is barking.

iyá - mmá wáá - ˀa ké - iy - e

[dog - nom] [noise-nom pres cont - do - 3rd pers sub - indic]

M - m M - m m - M - m - m

(33b) The woman's clothes are very dirty.

aara - go - nĩ́ unáá - káˀtɔ̂ - ma pĩ́pĩ́yaa ɔ̂ri

[woman - stative - poss bag - skirt - nom] [dirt very

M - m - m M - M - m M M

ké - iy - e

pres cont - do - it - indic]

m - M - m - m

Here the interior of the Subject phrase also shows the order modifier (M-m - m) before modified (M-M-m).

(34) Don't feel sorry for me!

e-má a-ru-tábá -má i-uma-tikaa-o

[you-nom] [your-liver-about-nom neg-do-1st per benefactive -2nd per subj-imperative]

M - m m - M - m - m (M - M - m - m - m)

In the following profiles, there are intervening phrases (Object or Locational or Time) between the Subject phrase and the Verb phrase.

Sentences (35) and (36) have S-phrase + O-phrase + V(S) phrase profile.

(35) The girl who always helps me is washing my dishes.

tí - waʔnaa	tí - waʔnaa	inaaru-go-ma	ke-tí	táápe-ʔa	tete
[my - aid	my - aid	girl-stative-nom]	[I-poss	dish-nom]	[wash
(m - M	m - M)	M - m - m	M - m	M - m	M

ké - iy - e

pres cont - do - 3rd per - indic]

m - M - m - m

The S-phrase order is modifier (reduplicated m-M) before modified (M-m-m); the O-phrase is modifier (M-m) before modified (M-m); and the V(S)-phrase is also modifier (M) before modified (m-M-m-m).

(36) I am positively going to stuff myself with food!

ke - má	aáwa - ʔa	náiʔ náiʔ	o - n - ú - po
[I - nom]	[food - nom]	[eat eat	do - fut - I - certitive]
M - m.	M - m	(M M)	M - m - m - m

The V(S) phrase interior shows the order modifier (reduplicated M) before modified (M-m-m-m).

Sentences (37) to (40) show the profile S-phrase + L-phrase + V(S) phrase.

(37) Five big sweet potatoes are cooking in the ashes at the fire.

môra	tí-yaa-paʔ	anó	kamaa-ma	ira-rá-ʔá	ké-gau-g-iy-e
[one	my - hand - loc	big	sweet potato-nom]	[fire-at-nom]	[pres cont-cook in-ashes-stative-3rd per.-indic]
(M	m - M - m)	M	M - m	M-m-m	m-M-m-m-m

(38) A lot of people were in our garden.

netúʔ	áárá-wáá-má	ke-táá-í	yó-pá-ʔá	máiʔ
[plenty	woman-man-nom]	[1st per-pl-poss	garden-loc-nom]	[be
M	(M-M-m)	M - m - m	M - m - m	M

u-raa-e
do-past-they-indic]
M - m - m - m

(39) Four children are crying in your house.

kaaya-té	kaaya-té	iyápó-ma	e-ni	naa-û pa-ʔa
[two-with	two-with	child-nom]	[2nd per-poss	house-inside-loc-nom]
(M-m	M-m)	M - m	M - m	M - m - m-m

ibi-ʔa	ké-yaraa-e
[cry - nom	pres cont-move-they-indic]
M - m	m - M - m - m

(40) I think the green snake left the forest of Kagu.

yaa-éna	iraakabaayaa-ma	kaagú	yaa-yu-ʔnoba-ké
[tree-leaf	snake-nom]	[kagu	tree-collective-inside-from]
(M-M)	M-m	M	M - m - m - m

kóu-ra-ra-n-iy-e
[go-past-past-fut-3rd per-indic]
M - m - m - m - m - m

The translation 'I think' is equivalent to an alternative for 'probably' which is expressed literally as past-future.

Sentence (41) shows the profile S-phrase + T-phrase + V(S)-phrase, and sentence (42) differs only in the phrase interior of the last phrase — a C-phrase without embedded Subject.

(41) The man will return in one month.
waa-gó-má mô͡ra wiyo-ma yauwaré yí-n-iy-e
[man-stative-nom] [one month-nom] [circle come-fut-3rd per subj-indic]
M - m - m M M - m M M - m - m - m

(42) Your bed is good now.
e-ní waí-yááré-má íbê-ˀa iraˀó-ne
[you-poss sleep-table-nom] [now-nom] [good-indicative]
M - m M - M - m M - m M - m

The following profiles show the sequence S-phrase + V(S) phrase preceded by another phrase (Object or Time or Locational or Concomitant).

Sentences (43) and (44) exemplify profile O-S-V(S).

(43) I am familiar with the directions for making a string bag.
unáá kátáá-má ke-má íta-ra-un-e.
[bag talk-nom] [I-nom] [hear-past-I- indicative]
M M - m M - m M - m - m -m

(44) I don't know where he went.
we-ní ko-ína-pa-ˀa ke-má í-ma íta-ra-unee
[he-poss go-3rd per-loc-nom] [I-nom] [neg-nom hear-past-I-indicative]
M - m M - m - m - m M - m M - m M - m - m - m

Sentences (45) to (47) exemplify profile T-S-V(S).

(45) Now the good stick is broken.

íbê -ʔa   iraʔó   yata-mma   aká-ku-ra-iy-e
[now-nom]   [good   stick-nom]   [break-stative-past-3rd per - indicative]
M - m   M   M - m   M - m - m - m - m

(46) This little child is always afraid of me.

aati   aati-má   maa   pááʔyá   íyápó-má   ika-tíká-iy-e
[always   always-nom]   [this   little   child-nom]   [fear-1st per benefactive-3rd per - indic]
(M   M-m)   M   M   M - m   M - m - m - m

(47) My helper is not here now.

íbê-ʔa   tí-waʔnaa-go-ma   í-ma   má-iy-e
[now-nom]   [my-aid-stative-nom]   [neg-nom   be-3rd per - indic]
M - m   m - M - m - m   M - m   M - m - m

The profile L-S-V(S) of sentence (48) may be expanded to L-S-O-V(S) of sentences (49a) and (49b).

(48) The one who was sick went down and stayed at the hospital.

karí-náá-ó-pá-ʔá   karí   k-á-ka-i-na-ko-ma
[sickness-house-place-loc-nom]   [sickness   pres cont-3rd per-obj-like-3rd per subj-one-stative-nom]
M - M - m - m - m   M   m - m - M - m - m - m - m
ku-ka-tá-iy-e
[go down-sleep-past-3rd pers subj-indic]
(M - M - m - m - m)

(49a) I killed a snake where I was eating.

ke-tí   ná-una-pa-ʔ   ke-má   iraakabayaa-má   iká-ka-un-e
[I-poss   eat-1st per subj-loc-nom]   [I-nom]   [snake-nom]   [hit-past-1st per subj-indic]
M-m   M-m-m-m   M-m   M-m   M-m-m-m

(49b) *I like my new house*.

ke-tí	áúge	naa-o-pa-taba	ke-má	ti-mu-ˀá	ké-mara-un-e
[I-poss	new	house-place-loc-about]	[I-nom]	[my-seed-nom]	[pres cont-put-I-indic]
M - m	M	M - m - m - m	M - m	m - M - m	m - M - m - m

Possessor precedes other modifier when both occur, as in the first bracket of this sentence.

Sentence (50) exemplifies the profile concomitant phrase - S-V(S).

(50) *The people used to sleep with animals*.

waí-waa-kara	pó-iya-kara	waa-yú-ká-ma	waé-wao-miye
[rat-possum-with	pig-dog-with]	[man-collective-at-nom]	[sleep-customary-they-emphatic aptitive]
(M-M-m)	(M-M-m)	M - m - m - m	M - m - m - m

The first word of the first bracket is a compound meaning *wild animals*, the second a compound for *domestic animals*; the two compounds are used together for *animals* in general.

Profiles beginning with Object phrase, as in sentences (51) to (55), or with Locational phrase, as in sentence (56), or with Time phrase, as in sentence (57), all end with Verb phrase, either V(S) or V(OS).

(51) *I remember your dog's name*.

e-ní	iyá-kó-ní	á-wi-ˀa	t-áá-kaˀ	ma-ká-un-e
[you-poss	dog-agent-poss	his-name-nom]	[my-ear-at	put-past-I-indic.]
M - m	M-m-m	m - M - m	m - M - m	M - m-m-m

(52) What are you bringing?

nóe-na-ˀ ma-mé ké-ye-n-o?

[what-it-nom] [get-take pres cont-come-you-interrogative]

M - m - m (M-M) m - M - m - m

(53) Come and get your money!

e-ní móni-ˀa ya-mayaa-o

[you-poss money-nom] [come-take-2nd per-imperative]

M - m M - m (M-M-m-m)

(54) Bring a dozen ears of corn!

ti-yáá-ka nae-ka-má t-ítau-pa-ke kaayaˀ ápáátari-ma

[my-hand-at all-at-nom my-foot-loc-from two corn-nom]

(m-M-m M-m-m m-M-m-m M) M-m

ma-mé i-yo

[get-take come-2nd per-imp]

(M-m) M-m-m

(55) Yesterday we saw sixteen pigs.

ti-yáá-ka nae-ka-má môra t-itau-ˀa aba-pa-ké-má môra

[my-hand-at all-at-nom one my-foot-nom M-loc-from-nom one

(m-M-m M-m-m M m-M-m M-m-m-m M)

po-ma yim-óne-ta-unta-e

pig-nom] [them-see-yesterday-we-indicative]

M-m m - M - m - m - m

The gloss (M-loc-from-nom) refers to M morpheme aba- <abamá, meaning

the space between the branchings of a tree.

(56) Where were you born?

náa-ka-raʔ	ma-ráka-ra-iy-o
[interrogative-nonspecific loc - nom]	[put-benefactive 2nd per-past-3rd per subj-interrogative]
M - m - m	M - m - m - m - m

(57) Day before yesterday he paid us a visit.

ayukába-ʔa	nammá-ʔá	i-rá-iy-e
[day before yesterday - nom]	[visit-nom	come-past-3rd per subj-indic]
M - m	M - m	M- m - m - m

Pairs of phrases precede Verb phrases, as T-O permutable to O-T in sentences (58) to (61); L-O permutable to O-L in sentences (62) and (63); and T-L permutable to L-T in sentences (64) and (65).

(58) He just broke the good stock.

ĩbê-ʔa	iraʔó	yata-mma	aká-ta-iy-e
[now-nom]	[good	stick-nom]	[break-past-3rd per-indicative]
M - m	M	M - m	M - m - m - m

(59) At his coming we'll cook a big feast.

we-nĩ́	y-ĩ́na-tao-ʔa	anón	oni-ʔa	agaya-n-únata-e
[he-poss	come-3rd per subj-time-nom]	[big	feast-nom]	[cook-fut-1st pl subj-indic]
M - m	M - m - m - m	M	M - m	M - m- m - m

(60) When did they-two give you that land?

náa-raʔ	taora-ʔa	mi	márá-má	á-mi-kaa-y-o
[interrogative-at	time-nom]	[that	land-nom]	[you-give-past-non 1st per dual-interrogative]
M - m	M - m	M	M - m	m - M - m - m - m

(61) Sing the song once more.

i-má	môra	tao-ʔa	ti-yo
[bow-nom]	[one	time-nom]	[say-2nd per subj-imp.]
M - m	M	M - m	M - m - m

(62) Go put that food in the kitchen - the food cooker's place.

aáwa-ʔa	agaí-na-ko-ni	naa-ô-pa-ʔa	min	aáwa-ʔa
[food-nom	cook-one-stative-poss	house-place-loc-nom]	[that	food-nom]
(M-m	M-m-m-m)	M-m-m-m	M	M-m

ko-maraa-o
[go-put-2nd per - imper.]
(M-M-m)

(63) Kill the pig in the garden.

pó-ma	yó-pá-ʔá	ikamu-wo
[pig-nom]	[garden-loc-nom]	[3rd per obj-hit-2nd per subj-imp]
M - m	M - m - m	m - M - m - m

(64) When he is well he will go up and stay at his own home.

karí	é-ráká-ku-́ra-i	kanaa-má
[sickness	heal-3rd per benefactive-stative-past-3rd per subj	time-nom]
M	M - m - m - m - m	M - m

wen a-máá-pa-ʔa ya-waí-n-iy-e

[his his-area-loc-nom] [go up-sleep-fut-3rd per-indic]

M m - M - m - m (M-M-m-m-m)

(65) Tomorrow they will have a discussion over there.

epi-bá-ʔá abáyáá-ma wataa wataa o-no-e

[over there-loc-nom] [morning-nom] [talk talk do-fut-3rd pl subj-indic]

M - m - m M - m (M M) M-m-m-m

The following two clause sentences have identical embedded Subject in each Verb phrase in sentences (66), (67), (68), and (72); or a general same subject indicator for one of the two clauses, as in sentences (69), (70), and (71).

(66) He is dead so he does not talk to me.

pu-ku-ré-na ti-má í-ti-m-iy-e

[die-stative-past-3rd per subj.] // [talk-nom neg-1st per obj-give-3rd per subj-indic]

M - m - m - m M - m m - m - M - m - m
M

(67) If I had seen it (but I didn't) I would know.

a-óna-una-raa itá-naa ú́nae

[3rd per obj-see-1st per subj-cond] // [hear-fut dó-1st per subj-aptitive]

m - M - m - m M - m M- m - m

(68) If I cook, I will be able to eat.

ke aga-má ke na-náá ú-nae.

[I] [cook-nom] // [I] [eat-fut do-1st per subj-apt]

M M - m M M-m M - m - m

(69) He will pour out the water and drink it.

we-má	no-mmá	atí-ma	ná-n-iy-e
[he-nom]	[water-nom]	[pour-same subj] //	[eat-fut-3rd per subj-indic]
M - m	M - m	M - m	M - m - m - m

(70) I will peel the sweet potato and eat it.

ke-má	kamáá-ma	púˀ-ma	na-n-ún-e
[I-nom]	[sweet potato-nom]	[peel-same subj] //	[eat-fut-1st per subj-indic]
M- m	M - m	M - m	M - m - m - m

(71) When he cut his hand he didn't cry.

a-yáá-ma	kárá-ma	ibi-ˀá	í-ya-ka-iy-e
[3rd per poss-hand-nom]	[cut-same subj] //	[cry-nom	neg-cry-past-3rd per subj-indic]
m - M - m	M - m	M - m	M-M-m-m-m

(72) Because I hadn't peeled it I couldn't eat it.

naiyóbáˀ	í-ma	puré-ˀa	í-na-naa	ú-nae
[formerly-at]	[neg-nom	peel-1st per subj] //	[neg-eat-fut	do-1st per subj-apt]
M - m	M - m	M-m	M-M-m	M-m-m

The following two clause sentences have non-identical embedded Subject in each Verb phrase.

Sentences (73) to (76) show profile V(S1) // V(S2)

(73) When he cooked it I ate.

aga-tá-imma	na-rá-un-e
[cook-past-3rd per subj] //	[eat-past-1st per subj-indic]
M - m - m	M - m - m - m

(74) When he cooked it, I was eating.

aga-tá-imma   ké-na-un-e

[cook-past-3rd per subj] // [pres cont-eat-1st per-indic]

M - m - m   m - M - m - m

(75) When he cooks, I eat.

agayá-imma   na-rá-un-e

[cook-3rd per subj] // [eat-past-1st per-indic]

M - m   M - m - m - m

(76) When he is cooking, I will eat.

k-ágaya-imma   na-rá-un-e

[pres cont-cook-3rd per subj] // [eat-past-1st per subj-indic]

m - M - m   M - m - m - m

Sentences (77) and (78) show profile S1-V(S1) // S2-V(OS2).

(77) If he comes you will be able to see him then.

we   kum-ímma   e   a-óna-ne   o-nae

[he] [come down-3rd subj] // [you] [3rd per obj-see-fut do-you-apt]

M   M - m   M   m - M - m   M - m - m

(78) If he comes I will be able to see him.

we   yé-na-raa   ke   a-óna-naa   únae

[he] [come-3rd per subj-cond]//[I] [3rd per obj-see-fut do-1st per subj-apt]

M   M - m - m   M   m - M - m   M - m - m

Sentence (79) shows profile S1-V(S1) // L-V(S2).

(79) If I had a car I could go to Goroka.

ke-tǐ káári wa-i-kakaatatǐ károka-paʔ koo-náá

[1st per-poss car [be-3rd per subj-cond] // [Goroka-loc] [go-fut

M - m M M - m - m M - m M - m

ú-nae

do-1st per subj-apt]

M - m - m

Sentence (80) shows profile V(OS1) // L-V(S2).

(80) If you like, come to my house.

a-ká-ina-ma ke-tǐ naa-û-pa-ʔ

[2nd per obj-like-3rd per subj-cond] // [I-poss house-inside-loc-nom]

m - M - m - m M - m M - m-m-m

i-yo

[come-2nd per subj-imp]

M - m - m

Sentence (81) shows profile T-V(OS1) // V (S2).

(81) When he hit us we two did not cry.

naiyó-báʔ t-ĭkam-imma ibi-ʔá

[formerly-at] [1st per plural obj-hit-3rd per subj] // [cry-nom

M - m m - M - m M - m

ǐ-ya-ka-uy-e

neg-cry-past-1st dual subj-indic]

M - M - m - m - m

The remaining sentences show that when the Subjects of the two clauses are different, the Subject of the second clause may be embedded in the first as well as in the second clause.

(82) He cooked it, so I ate just now.

agayá-ita-ʔ   na-rá-un-e

[cook-3rd per subj$_1$-1st per subj$_2$]// [eat-past-1st per subj-indic]

M - m - m   M - m - m

(83) He cooked it, so I am eating.

aga-tá-ita-ʔ   ké-na-un-e

[cook-past-3rd per subj$_1$-1st per subj$_2$]// [pres cont-eat-1st per-indic]

M - m - m - m   m - M - m - m

(84) He cooked it, so I ate.

aga-tá-ita-ʔ   na-rá-un-e

[cook-past-3rd per subj$_1$-1st per subj$_2$] // [eat-past-1st per subj-indic]

M - m - m - m   M - m - m - m

(85) He is cooking, so I will eat.

k-ágaya-ita-ʔ   na-rá-un-e

[pres cont-cook-3rd per subj$_1$-1st per subj$_2$] // [eat-past-1st per subj-indic]

m - M - m - m   M - m - m - m

(86) He cooked it and I will eat.

aga-tá-ina-ʔ   na-n-ún-e

[cook-past-3rd pers sg. subj$_1$-1st per sg.subj$_2$] // [eat-fut-1st per sg.subj-indic]

M - m-m-m   M - m - m - m

(87) He will cook it and I will eat.

agayá-ina-ˀ na-n-ún-e

[cook-3rd per subj$_1$-1st per subj$_2$] // [eat-fut-1st per subj-indic]

M - m - m M - m - m - m

(88) He is cooking it and I will eat.

k-ágaya-ina-ˀ na-n-ún-e

[pres cont-cook-3rd per subj$_1$-1st per subj$_2$] // [eat-fut-1st per subj-indic]

m - M - m - m M - m - m - m

(89) If he cries she won't give it to him.

ibi-ˀá yará-ina-na-ma í-a-mi-n-iy-e

[cry-nom cry-3rd per subj$_1$-3rd per subj$_2$-cond] // [neg-3rd per obj-give-fut-3rd per subj-indic]

M - m M - m - m - m m - m - M - m - m - m

(90) He's eating and I'll come later.

we ké-na-ina-ˀ anáe-kaˀ ye-n-ún-e

[he] [pres cont-eat-3rd per subj$_1$-1st per subj$_2$] // [later-at] [come-fut-1st per-indic]

M m - M - m - m M - m M - m - m -m

(91) If I tell him (to) he will cook.

ti-má a-mé-na-na-ma

[talk-nom] [3rd per obj-give-1st per subj$_1$-3rd per subj$_2$-cond] //

M - m m - M - m - m - m

agayá-n-iy-e

[cook-fut-3rd per subj-indic]

M - m - m - m

(92) Tell him to come.

ti-má	a-m-ĩna-na		y-in-o
[talk-nom]	[3rd per obj-give-2nd per subj$_1$-3rd per subj$_2$]	//	[come-3rd per subj-imperative]
M - m	m - M - m - m		M - m - m

(93) You will tell him and he will come.

ti-má	a-m-ĩna-na		yĩ-n-iy-e
[talk-nom]	[3rd per obj-give-2nd per subj$_1$-3rd per subj$_2$]	//	[come-fut-3rd per sub-indic]
M - m	m - M - m - m		M - m - m - m

(94) He hit the two of us so we cried.

náĩyó-baʔ	t-ĩkam-ita-ka	
[formerly-loc]	[1st per obj-hit-3rd per subj$_1$-1st per dual subj$_2$]	//
M - m	m - M - m - m	

ibi-ʔá	ya-ká-uy-e
[cry-nom]	[cry-past-1st dual subj-indic]
M - m	M - M - m - m

(95) Later he will come from Ukarumpa and we two will go to Kemiyu.

anáe-kaʔ	we-má	úkáráá-pa-ke	kum-ińa-ka	
[later-at]	[he-nom]	[ukarumpa-loc-from]	[come down-3rd per subj$_1$ 1st per dual subj$_2$	//
M - m	M - m	M - m - m	M - m - m	

kémę́yú-paʔ	ko-y-úy-e
[kemiyu-loc]	[go-fut-1st per dual sub-indic]
M - m	M - m - m - m

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The Following Abbreviations Will Be Used

AA	American Anthropologist
ACLS . . .	American Council of Learned Societies
AES-P . . .	American Ethnological Society, Publication
AL	Anthropological Linguistics
APS-P . . .	American Philosophical Society, Proceedings
APS-T . . .	American Philosophical Society, Transactions
BAE-B . . .	Bureau of American Ethnology, Bulletin
BAE-R . . .	Bureau of American Ethnology, Report
CU	Columbia University Contributions to Anthropology
IJAL	International Journal of American Linguistics
IUPAL . . .	Indiana University Publications in Anthropology and Linguistics
JAF	Journal of American Folklore
JSAP	Journal de la Société des Américanistes de Paris
Lg	Language
RCPAFL . .	Research Center Publications in Anthropology, Folklore and Linguistics
SJA	Southwestern Journal of Anthropology
SIL	Studies in Linguistics
TCLP . . .	Travaux du Cercle Linguistique de Prague
UMPL . . .	University of Michigan Publications, Linguistics
UCPAAE . .	University of California Publications in American Archaeology and Ethnology
UCPL . . .	University of California Publications in Linguistics
VFPA . . .	Viking Fund Publications in Anthropology
WDWLS . .	William Dwight Whitney Linguistic Series

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